

## Women's 400m Split Times - by athletics meeting

LAST UPDATE: 5-Mar-25

## 2024 Chinese National Championships (Quzhou, CHN)

FINAL		date	Shandong Athletics Sport Science (2024)																
		16-Sep-24	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Mo Jiadie (CHN) (2000)	time		14.01		25.28		38.89	45.91	53.15	53.15	4 / 1								
	reaction time 0.218	interval			11.27		13.61	7.02	7.24		# of strides	14.01	11.27	13.61	14.26	25.28	27.87	2.59	
	velocity		7.14		8.87		7.35	7.12	6.91	7.53	200.5	7.14	8.87	7.35	7.01	7.91	7.18		
Liu Yutong (CHN) (2002)	time		14.35		25.96		39.60	46.51	53.94	53.94	5 / 2								
	reaction time 0.176	interval			11.61		13.64	6.91	7.43		# of strides	14.35	11.61	13.64	14.34	25.96	27.98	2.02	
	velocity		6.97		8.61		7.33	7.24	6.73	7.42	193.5	6.97	8.61	7.33	6.97	7.70	7.15		
Huang Guifen (CHN) (1997)	time		14.55		26.12		39.75	46.69	54.03	54.03	6 / 3								
	reaction time 0.211	interval			11.57		13.63	6.94	7.34		# of strides	14.55	11.57	13.63	14.28	26.12	27.91	1.79	
	velocity		6.87		8.64		7.34	7.20	6.81	7.40	191.5	6.87	8.64	7.34	7.00	7.66	7.17		
Zuo Siyu (CHN) (2001)	time		14.38		25.67		39.40	46.64	54.39	54.39	2 / 4								
	reaction time 0.202	interval			11.29		13.73	7.24	7.75		# of strides	14.38	11.29	13.73	14.99	25.67	28.72	3.05	
	velocity		6.95		8.86		7.28	6.91	6.45	7.35	207.5	6.95	8.86	7.28	6.67	7.79	6.96		
Jiang Yutong (CHN) (2005)	time		14.81		26.52		39.91	46.91	54.39	54.39	8 / 5								
	reaction time 0.171	interval			11.71		13.39	7.00	7.48		# of strides	14.81	11.71	13.39	14.48	26.52	27.87	1.35	
	velocity		6.75		8.54		7.47	7.14	6.68	7.35	209.7	6.75	8.54	7.47	6.91	7.54	7.18		
Zhou Li (CHN) (2003)	time		14.18		25.52		39.49	47.01	54.85	54.85	1 / 6								
	reaction time 0.188	interval			11.34		13.97	7.52	7.84		# of strides	14.18	11.34	13.97	15.36	25.52	29.33	3.81	
	velocity		7.05		8.82		7.16	6.65	6.38	7.29	205.5	7.05	8.82	7.16	6.51	7.84	6.82		
Gu Zihan (CHN) (2001)	time		14.55		26.18		39.92	47.11	54.98	54.98	3 / 7								
	reaction time 0.192	interval			11.63		13.74	7.19	7.87		# of strides	14.55	11.63	13.74	15.06	26.18	28.80	2.62	
	velocity		6.87		8.60		7.28	6.95	6.35	7.28	203.0	6.87	8.60	7.28	6.64	7.64	6.94		
He Miao (CHN) (2003)	time		14.70		26.29		40.16	47.43	55.21	55.21	7 / 8								
	reaction time 0.224	interval			11.59		13.87	7.27	7.78		# of strides	14.70	11.59	13.87	15.05	26.29	28.92	2.63	
	velocity		6.80		8.63		7.21	6.88	6.43	7.25	201.5	6.80	8.63	7.21	6.64	7.61	6.92		

## 2024 Memorial van damme (Brussels, BEL)

FINAL		date	Omega Timing (2024) - diamond league race analysis																
		13-Sep-24	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Paulino, Marileidy (DOM) (19)	time		6.60	12.08	17.70	23.52	29.58	35.88	42.44	49.45	49.45	5 / 1							
	reaction time 0.175	interval		5.48	5.62	5.82	6.06	6.30	6.56	7.01		# of strides	12.08	11.44	12.36	13.57	23.52	25.93	2.41
	velocity		7.58	9.12	8.90	8.59	8.25	7.94	7.62	7.13	8.09	171.0	8.28	8.74	8.09	7.37	8.50	7.71	
Holmes, Alexis (USA) (2000)	time		6.73	12.32	18.09	24.14	30.42	36.88	43.51	50.32	50.32	3 / 2							
	reaction time 0.145	interval		5.59	5.77	6.05	6.28	6.46	6.63	6.81		# of strides	12.32	11.82	12.74	13.44	24.14	26.18	2.04
	velocity		7.43	8.94	8.67	8.26	7.96	7.74	7.54	7.34	7.95	8.12	8.46	7.85	7.44	8.29	7.64		
Naser, Salwa Eid (BRN) (1991)	time		6.75	12.17	17.83	23.79	29.96	36.38	43.11	50.64	50.64	6 / <del>3</del>							
	reaction time 0.193	interval		5.42	5.66	5.96	6.17	6.42	6.73	7.53	DQ	# of strides	12.17	11.62	12.59	14.26	23.79	26.85	3.06
	velocity		7.41	9.23	8.83	8.39	8.10	7.79	7.43	6.64	7.90	188.0	8.22	8.61	7.94	7.01	8.41	7.45	
Adeleke, Rhasidat (IRL) (200)	time		6.75	12.22	17.83	23.78	29.93	36.40	43.24	50.96	50.96	4 / <del>4</del> 3							
	reaction time 0.155	interval		5.47	5.61	5.95	6.15	6.47	6.84	7.72		# of strides	12.22	11.56	12.62	14.56	23.78	27.18	3.40
	velocity		7.41	9.14	8.91	8.40	8.13	7.73	7.31	6.48	7.85	8.18	8.65	7.92	6.87	8.41	7.36		
Irby-Jackson, Lynna (USA) (	time		6.66	12.12	17.94	24.10	30.47	37.03	43.96	51.50	51.50	8 / <del>5</del> 4							
	reaction time 0.170	interval		5.46	5.82	6.16	6.37	6.56	6.93	7.54		# of strides	12.12	11.98	12.93	14.47	24.10	27.40	3.30
	velocity		7.51	9.16	8.59	8.12	7.85	7.62	7.22	6.63	7.77	8.25	8.35	7.73	6.91	8.30	7.30		
Klaver, Lieke (NED) (1998)	time		6.72	12.08	17.64	23.53	29.82	36.49	43.68	51.69	51.69	7 / <del>6</del> 5							
	reaction time 0.176	interval		5.36	5.56	5.89	6.29	6.67	7.19	8.01		# of strides	12.08	11.45	12.96	15.20	23.53	28.16	4.63
	velocity		7.44	9.33	8.99	8.49	7.95	7.50	6.95	6.24	7.74	8.28	8.73	7.72	6.58	8.50	7.10		
Brossier, Amandine (FRA) (	time		6.90	12.59	18.49	24.62	30.95	37.59	44.53	51.94	51.94	1 / <del>7</del> 6							
	reaction time 0.208	interval		5.69	5.90	6.13	6.33	6.64	6.94	7.41		# of strides	12.59	12.03	12.97	14.35	24.62	27.32	2.70
	velocity		7.25	8.79	8.47	8.16	7.90	7.53	7.20	6.75	7.70	7.94	8.31	7.71	6.97	8.12	7.32		
Williams, Sada (BAR) (1997)	time		6.79	12.53	18.43	24.59	30.93	37.58	44.69	52.68	52.68	2 / <del>8</del> 7							
	reaction time 0.185	interval		5.74	5.90	6.16	6.34	6.65	7.11	7.99		# of strides	12.53	12.06	12.99	15.10	24.59	28.09	3.50
	velocity		7.36	8.71	8.47	8.12	7.89	7.52	7.03	6.26	7.59	7.98	8.29	7.70	6.62	8.13	7.12		

Invitational		date	Omega Timing (2024) - diamond league race analysis																
		13-Sep-24	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
McLaughlin-Levrone, Sydne	time		6.52	11.89	17.47	23.37	29.42	35.61	42.10	49.11	49.11	4 / 1							
	reaction time 0.161	interval		5.37	5.58	5.90	6.05	6.19	6.49	7.01		# of strides	11.89	11.48	12.24	13.50	23.37	25.74	2.37
	velocity		7.67	9.31	8.96	8.47	8.26	8.08	7.70	7.13	8.14	184.0	8.41	8.71	8.17	7.41	8.56	7.77	
Williams, Stacey-Ann (JAM)	time		6.63	12.22	18.16	24.28	30.38	36.71	43.35	50.53	50.53	6 / 2							
	reaction time 0.158	interval		5.59	5.94	6.12	6.10	6.33	6.64	7.18		# of strides	12.22	12.06	12.43	13.82	24.28	26.25	1.97
	velocity		7.54	8.94	8.42	8.17	8.20	7.90	7.53	6.96	7.92	193.0	8.18	8.29	8.05	7.24	8.24	7.62	
Miklós, Andrea (ROU) (1999)	time		6.66	12.17	17.86	23.90	30.18	36.80	43.69	51.16	51.16	5 / 3							
	reaction time 0.144	interval		5.51	5.69	6.04	6.28	6.62	6.89	7.47		# of strides	12.17	11.73	12.90	14.36	23.90	27.26	3.36
	velocity		7.51	9.07	8.79	8.28	7.96	7.55	7.26	6.69	7.82	202.0	8.22	8.53	7.75	6.96	8.37	7.34	
McPherson, Stephanie Ann	time		6.98	12.72	18.67	24.79	30.92	37.28	43.95	51.24	51.24	7 / 4							

reaction time	0.126	interval	5.74	5.95	6.12	6.13	6.36	6.67	7.29		# of strides	12.72	12.07	12.49	13.96	24.79	26.45	1.66
velocity	7.16	8.71	8.40	8.17	8.16	7.86	7.50	6.86	7.81	186.0	7.86	8.29	8.01	7.16	8.07	7.56		
<b>Claes, Hanne (BEL) (1991)</b>	time	6.84	12.62	18.65	24.91	31.34	37.96	44.77	52.03	52.03	3 / 5							
reaction time	0.219	interval	5.78	6.03	6.26	6.43	6.62	6.81	7.26		# of strides	12.62	12.29	13.05	14.07	24.91	27.12	2.21
velocity	7.31	8.65	8.29	7.99	7.78	7.55	7.34	6.89	7.69	193.7	7.92	8.14	7.66	7.11	8.03	7.37		
<b>Ponette, Helena (BEL) (2000)</b>	time	6.93	12.54	18.43	24.61	30.97	37.77	45.09	53.08	53.08	8 / 6							
reaction time	0.157	interval	5.61	5.89	6.18	6.36	6.80	7.32	7.99		# of strides	12.54	12.07	13.16	15.31	24.61	28.47	3.86
velocity	7.22	8.91	8.49	8.09	7.86	7.35	6.83	6.26	7.54	202.0	7.97	8.29	7.60	6.53	8.13	7.02		
<b>Borga, Rebecca (ITA) (1998)</b>	time	6.95	12.82	18.91	25.27	31.93	38.85	46.07	54.25	54.25	2 / 7							
reaction time	0.165	interval	5.87	6.09	6.36	6.66	6.92	7.22	8.18		# of strides	12.82	12.45	13.58	15.40	25.27	28.98	3.71
velocity	7.19	8.52	8.21	7.86	7.51	7.23	6.93	6.11	7.37	210.0	7.80	8.03	7.36	6.49	7.91	6.90		

**2024 Weltklasse (Zürich, SUI)**

FINAL

date 05-Sep-24

Omega Timing (2024) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Jäger, Henriette (NOR) (200)</b>	time	6.71	12.30	18.06	23.99	30.23	36.74	43.41	50.49	50.49	4 / 1							
reaction time	0.138	interval	5.59	5.76	5.93	6.24	6.51	6.67	7.08		# of strides	12.30	11.69	12.75	13.75	23.99	26.50	2.51
velocity	7.45	8.94	8.68	8.43	8.01	7.68	7.50	7.06	7.92	8.13	8.55	7.84	7.27	8.34	7.55			
<b>Gogl-Walli, Susanne (AUT) (time)</b>	6.82	12.40	18.14	24.06	30.26	36.77	43.49	50.60	50.60	5 / 2								
reaction time	0.166	interval	5.58	5.74	5.92	6.20	6.51	6.72	7.11	NR PB	# of strides	12.40	11.66	12.71	13.83	24.06	26.54	2.48
velocity	7.33	8.96	8.71	8.45	8.06	7.68	7.44	7.03	7.91	8.06	8.58	7.87	7.23	8.31	7.54			
<b>Kus, Anasztja (POL) (2007)</b>	time	7.15	13.17	19.36	25.47	31.78	38.30	45.04	52.10	52.10	1 / 3							
reaction time	0.150	interval	6.02	6.19	6.11	6.31	6.52	6.74	7.06		# of strides	13.17	12.30	12.83	13.80	25.47	26.63	1.16
velocity	6.99	8.31	8.08	8.18	7.92	7.67	7.42	7.08	7.68	7.59	8.13	7.79	7.25	7.85	7.51			
<b>Saalberg, Eveline (NED) (199)</b>	time	6.94	12.60	18.47	24.57	30.99	37.74	44.68	52.27	52.27	6 / 4							
reaction time	0.203	interval	5.66	5.87	6.10	6.42	6.75	6.94	7.59		# of strides	12.60	11.97	13.17	14.53	24.57	27.70	3.13
velocity	7.20	8.83	8.52	8.20	7.79	7.41	7.20	6.59	7.65	7.94	8.35	7.59	6.88	8.14	7.22			
<b>Senn, Giulia (SUI) (2001)</b>	time	6.78	12.71	18.77	25.00	31.45	38.14	45.09	52.52	52.52	3 / 5							
reaction time	0.156	interval	5.93	6.06	6.23	6.45	6.69	6.95	7.43		# of strides	12.71	12.29	13.14	14.38	25.00	27.52	2.52
velocity	7.37	8.43	8.25	8.03	7.75	7.47	7.19	6.73	7.62	7.87	8.14	7.61	6.95	8.00	7.27			
<b>Gubelmann, Catia (SUI) (200)</b>	time	6.91	12.72	18.77	25.06	31.53	38.26	45.22	52.60	52.60	7 / 6							
reaction time	0.164	interval	5.81	6.05	6.29	6.47	6.73	6.96	7.38		# of strides	12.72	12.34	13.20	14.34	25.06	27.54	2.48
velocity	7.24	8.61	8.26	7.95	7.73	7.43	7.18	6.78	7.60	7.86	8.10	7.58	6.97	7.98	7.26			
<b>Fahr, Annina (SUI) (1993)</b>	time	6.88	12.59	18.50	24.68	31.07	37.86	44.96	52.87	52.87	8 / 7							
reaction time	0.163	interval	5.71	5.91	6.18	6.39	6.79	7.10	7.91		# of strides	12.59	12.09	13.18	15.01	24.68	28.19	3.51
velocity	7.27	8.76	8.46	8.09	7.82	7.36	7.04	6.32	7.57	7.94	8.27	7.59	6.66	8.10	7.09			
<b>Niederberger, Julia (SUI) (20)</b>	time	6.95	12.72	18.75	24.98	31.58	38.49	45.64	53.11	53.11	2 / 8							
reaction time	0.161	interval	5.77	6.03	6.23	6.60	6.91	7.15	7.47		# of strides	12.72	12.26	13.51	14.62	24.98	28.13	3.15
velocity	7.19	8.67	8.29	8.03	7.58	7.24	6.99	6.69	7.53	7.86	8.16	7.40	6.84	8.01	7.11			

**2024 Kamila Skolimowska Memorial (Silesia, POL)**

FINAL

date 25-Aug-24

Omega Timing (2024) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Paulino, Marileidy (DOM) (19)</b>	time	6.56	11.96	17.59	23.43	29.61	35.69	42.01	48.66	48.66	6 / 1							
reaction time	0.177	interval	5.40	5.63	5.84	6.18	6.08	6.32	6.65		# of strides	11.96	11.47	12.26	12.97	23.43	25.23	1.80
velocity	7.62	9.26	8.88	8.56	8.09	8.22	7.91	7.52	8.22	170.0	8.36	8.72	8.16	7.71	8.54	7.93		
<b>Naser, Salwa Eid (BRN) (199)</b>	time	6.52	11.80	17.33	23.23	29.34	35.77	42.36	49.23	49.23	4 / 2							
reaction time	0.169	interval	5.28	5.53	5.90	6.11	6.43	6.59	6.87		# of strides	11.80	11.43	12.54	13.46	23.23	26.00	2.77
velocity	7.67	9.47	9.04	8.47	8.18	7.78	7.59	7.28	8.13	186.0	8.47	8.75	7.97	7.43	8.61	7.69		
<b>Kaczmarek, Natalia (POL) (11)</b>	time	6.76	12.29	17.82	23.71	30.00	36.56	43.21	49.95	49.95	5 / 3							
reaction time	0.167	interval	5.53	5.53	5.89	6.29	6.56	6.65	6.74		# of strides	12.29	11.42	12.85	13.39	23.71	26.24	2.53
velocity	7.40	9.04	9.04	8.49	7.95	7.62	7.52	7.42	8.01	193.5	8.14	8.76	7.78	7.47	8.44	7.62		
<b>Adeleke, Rhasidat (IRL) (200)</b>	time	6.56	11.80	17.37	23.27	29.42	35.81	42.57	50.00	50.00	7 / 4							
reaction time	0.153	interval	5.24	5.57	5.90	6.15	6.39	6.76	7.43		# of strides	11.80	11.47	12.54	14.19	23.27	26.73	3.46
velocity	7.62	9.54	8.98	8.47	8.13	7.82	7.40	6.73	8.00	8.47	8.72	7.97	7.05	8.59	7.48			
<b>Holmes, Alexis (USA) (2000)</b>	time	6.63	12.12	17.79	23.83	30.08	36.62	43.27	50.01	50.01	3 / 5							
reaction time	0.148	interval	5.49	5.67	6.04	6.25	6.54	6.65	6.74		# of strides	12.12	11.71	12.79	13.39	23.83	26.18	2.35
velocity	7.54	9.11	8.82	8.28	8.00	7.65	7.52	7.42	8.00	8.25	8.54	7.82	7.47	8.39	7.64			
<b>Jäger, Henriette (NOR) (200)</b>	time	6.66	12.15	17.84	23.84	30.01	36.48	43.28	50.33	50.33	2 / 6							
reaction time	0.139	interval	5.49	5.69	6.00	6.17	6.47	6.80	7.05		# of strides	12.15	11.69	12.64	13.85	23.84	26.49	2.65
velocity	7.51	9.11	8.79	8.33	8.10	7.73	7.35	7.09	7.95	8.23	8.55	7.91	7.22	8.39	7.55			
<b>Klaver, Lieke (NED) (1998)</b>	time	6.66	12.11	17.80	23.78	29.98	36.46	43.21	50.46	50.46	8 / 7							
reaction time	0.135	interval	5.45	5.69	5.98	6.20	6.48	6.75	7.25		# of strides	12.11	11.67	12.68	14.00	23.78	26.68	2.90
velocity	7.51	9.17	8.79	8.36	8.06	7.72	7.41	6.90	7.93	8.26	8.57	7.89	7.14	8.41	7.50			
<b>Williams, Sada (BAR) (1997)</b>	time	6.71	12.42	18.29	24.29	30.60	36.96	43.61	50.82	50.82	9 / 8							
reaction time	0.168	interval	5.71	5.87	6.00	6.31	6.36	6.65	7.21		# of strides	12.42	11.87	12.67	13.86	24.29	26.53	2.24
velocity	7.45	8.76	8.52	8.33	7.92	7.86	7.52	6.93	7.87	8.05	8.42	7.89	7.22	8.23	7.54			
<b>Nielsen, Lavi (GBR) (1996)</b>	time	6.66	12.20	17.94	24.03	30.34	37.04	43.96	51.02	51.02	1 / 9							
reaction time	0.154	interval	5.54	5.74	6.09	6.31	6.70	6.92	7.06		# of strides	12.20	11.83	13.01	13.98	24.03	26.99	2.96
velocity	7.51	9.03	8.71	8.21	7.92	7.46	7.23	7.08	7.84	8.20	8.45	7.69	7.15	8.32	7.41			

## 2024 Athletissima (Lausanne, SUI)

## FINAL

date 22-Aug-24

Omega Timing (2024) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Gubelmann, Catia (SUI) (200)</b> time	6.80	12.55	18.62	24.94	31.41	38.13	45.07	52.57	52.57	5 / 1							
reaction time 0.162 interval		5.75	6.07	6.32	6.47	6.72	6.94	7.50		# of strides	12.55	12.39	13.19	14.44	24.94	27.63	2.69
velocity	7.35	8.70	8.24	7.91	7.73	7.44	7.20	6.67	7.61		7.97	8.07	7.58	6.93	8.02	7.24	
<b>Wernli, Lena (SUI) (2001)</b> time	6.96	12.90	19.05	25.30	31.79	38.63	45.66	53.33	53.33	6 / 2							
reaction time 0.143 interval		5.94	6.15	6.25	6.49	6.84	7.03	7.67		# of strides	12.90	12.40	13.33	14.70	25.30	28.03	2.73
velocity	7.18	8.42	8.13	8.00	7.70	7.31	7.11	6.52	7.50		7.75	8.06	7.50	6.80	7.91	7.14	
<b>Fahr, Annina (SUI) (1993)</b> time	6.95	12.75	18.82	25.15	31.65	38.46	45.55	53.49	53.49	4 / 3							
reaction time 0.168 interval		5.80	6.07	6.33	6.50	6.81	7.09	7.94		# of strides	12.75	12.40	13.31	15.03	25.15	28.34	3.19
velocity	7.19	8.62	8.24	7.90	7.69	7.34	7.05	6.30	7.48		7.84	8.06	7.51	6.65	7.95	7.06	
<b>Disch, Karin (SUI) (1997)</b> time	6.97	12.97	19.23	25.82	32.57	39.62	46.72	54.03	54.03	8 / 4							
reaction time 0.154 interval		6.00	6.26	6.59	6.75	7.05	7.10	7.31		# of strides	12.97	12.85	13.80	14.41	25.82	28.21	2.39
velocity	7.17	8.33	7.99	7.59	7.41	7.09	7.04	6.84	7.40		7.71	7.78	7.25	6.94	7.75	7.09	
<b>Gröbli, Michelle (SUI) (2001)</b> time	7.01	12.88	19.02	25.46	32.17	39.25	46.62	54.58	54.58	3 / 5							
reaction time 0.164 interval		5.87	6.14	6.44	6.71	7.08	7.37	7.96		# of strides	12.88	12.58	13.79	15.33	25.46	29.12	3.66
velocity	7.13	8.52	8.14	7.76	7.45	7.06	6.78	6.28	7.33		7.76	7.95	7.25	6.52	7.86	6.87	
<b>Yuille, Aline (SUI) (2002)</b> time	7.12	13.03	19.21	25.66	32.29	39.29	46.62	54.87	54.87	7 / 6							
reaction time 0.201 interval		5.91	6.18	6.45	6.63	7.00	7.33	8.25		# of strides	13.03	12.63	13.63	15.58	25.66	29.21	3.55
velocity	7.02	8.46	8.09	7.75	7.54	7.14	6.82	6.06	7.29		7.67	7.92	7.34	6.42	7.79	6.85	
<b>Bruhin, Shoelle (SUI) (1999)</b> time	7.02	12.97	19.22	25.79	32.51	39.56	46.93	54.97	54.97	1 / 7							
reaction time 0.168 interval		5.95	6.25	6.57	6.72	7.05	7.37	8.04		# of strides	12.97	12.82	13.77	15.41	25.79	29.18	3.39
velocity	7.12	8.40	8.00	7.61	7.44	7.09	6.78	6.22	7.28		7.71	7.80	7.26	6.49	7.75	6.85	
<b>Martin, Sophie (SUI) (2000)</b> time	6.90	12.78	18.97	25.45	32.23	39.50	47.23	55.66	55.66	2 / 8							
reaction time 0.181 interval		5.88	6.19	6.48	6.78	7.27	7.73	8.43		# of strides	12.78	12.67	14.05	16.16	25.45	30.21	4.76
velocity	7.25	8.50	8.08	7.72	7.37	6.88	6.47	5.93	7.19		7.82	7.89	7.12	6.19	7.86	6.62	

## 2024 Olympic Games (Paris, FRA)

## FINAL

date 09-Aug-24

Paris 2024 Olympic Games - Results Book (2024)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Paulino, Marileidy (DOM) (19)</b> time	6.56	11.87	17.22	22.81	28.67	34.78	41.15	48.17	48.17	6 / 1							
reaction time 0.187 interval		5.31	5.35	5.59	5.86	6.11	6.37	7.02	AR OR	# of strides	11.87	10.94	11.97	13.39	22.81	25.36	2.55
velocity	7.62	9.42	9.35	8.94	8.53	8.18	7.85	7.12	8.30		172.2	8.42	9.14	8.35	7.47	7.89	
<b>Naser, Salwa Eid (BRN) (199)</b> time	6.45	11.73	17.28	23.12	29.10	35.23	41.60	48.53	48.53	8 / 2							
reaction time 0.165 interval		5.28	5.55	5.84	5.98	6.13	6.37	6.93		# of strides	11.73	11.39	12.11	13.30	23.12	25.41	2.29
velocity	7.75	9.47	9.01	8.56	8.36	8.16	7.85	7.22	8.24		184.0	8.53	8.78	8.26	7.52	8.65	7.87
<b>Kaczmarek, Natalia (POL) (19)</b> time	6.64	12.09	17.50	23.22	29.32	35.66	42.06	48.98	48.98	7 / 3							
reaction time 0.176 interval		5.45	5.41	5.72	6.10	6.34	6.40	6.92		# of strides	12.09	11.13	12.44	13.32	23.22	25.76	2.54
velocity	7.53	9.17	9.24	8.74	8.20	7.89	7.81	7.23	8.17		191.0	8.27	8.98	8.04	7.51	8.61	7.76
<b>Adeleke, Rhasidat (IRL) (200)</b> time	6.58	12.01	17.54	23.29	29.23	35.51	42.02	49.28	49.28	4 / 4							
reaction time 0.153 interval		5.43	5.53	5.75	5.94	6.28	6.51	7.26		# of strides	12.01	11.28	12.22	13.77	23.29	25.99	2.70
velocity	7.60	9.21	9.04	8.70	8.42	7.96	7.68	6.89	8.12		186.2	8.33	8.87	8.18	7.26	8.59	7.70
<b>Anning, Amber (GBR) (2000)</b> time	6.55	11.95	17.57	23.39	29.56	35.97	42.50	49.29	49.29	5 / 5							
reaction time 0.185 interval		5.40	5.62	5.82	6.17	6.41	6.53	6.79	NR PB	# of strides	11.95	11.44	12.58	13.32	23.39	25.90	2.51
velocity	7.63	9.26	8.90	8.59	8.10	7.80	7.66	7.36	8.12		180.0	8.37	8.74	7.95	7.51	8.55	7.72
<b>Holmes, Alexis (USA) (2000)</b> time	6.53	11.96	17.59	23.47	29.61	36.05	42.67	49.77	49.77	9 / 6							
reaction time 0.147 interval		5.43	5.63	5.88	6.14	6.44	6.62	7.10	PB	# of strides	11.96	11.51	12.58	13.72	23.47	26.30	2.83
velocity	7.66	9.21	8.88	8.50	8.14	7.76	7.55	7.04	8.04		187.7	8.36	8.69	7.95	7.29	8.52	7.60
<b>Williams, Sada (BAR) (1997)</b> time	6.77	12.28	17.78	23.46	29.41	35.77	42.48	49.83	49.83	2 / 7							
reaction time 0.176 interval		5.51	5.50	5.68	5.95	6.36	6.71	7.35		# of strides	12.28	11.18	12.31	14.06	23.46	26.37	2.91
velocity	7.39	9.07	9.09	8.80	8.40	7.86	7.45	6.80	8.03		193.5	8.14	8.94	8.12	7.11	8.53	7.58
<b>Jäger, Henriette (NOR) (200)</b> time	6.63	12.04	17.63	23.47	29.62	36.06	42.71	49.96	49.96	3 / 8							
reaction time 0.142 interval		5.41	5.59	5.84	6.15	6.44	6.65	7.25		# of strides	12.04	11.43	12.59	13.90	23.47	26.49	3.02
velocity	7.54	9.24	8.94	8.56	8.13	7.76	7.52	6.90	8.01		193.2	8.31	8.75	7.94	7.19	8.52	7.55

## Semi-Final 3

date 07-Aug-24

Paris 2024 Olympic Games - Results Book (2024)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Kaczmarek, Natalia (POL) (19)</b> time	6.67	12.14	17.62	23.46	29.71	36.10	42.59	49.45	49.45	7 / 1							
reaction time 0.183 interval		5.47	5.48	5.84	6.25	6.39	6.49	6.86		# of strides	12.14	11.32	12.64	13.35	23.46	25.99	2.53
velocity	7.50	9.14	9.12	8.56	8.00	7.82	7.70	7.29	8.09		191.0	8.24	8.83	7.91	7.49	8.53	7.70
<b>Anning, Amber (GBR) (2000)</b> time	6.61	12.02	17.58	23.42	29.64	36.03	42.61	49.47	49.47	6 / 2							
reaction time 0.227 interval		5.41	5.56	5.84	6.22	6.39	6.58	6.86	PB	# of strides	12.02	11.40	12.61	13.44	23.42	26.05	2.63
velocity	7.56	9.24	8.99	8.56	8.04	7.82	7.60	7.29	8.09		179.5	8.32	8.77	7.93	7.44	8.54	7.68
<b>Williams, Sada (BAR) (1997)</b> time	6.74	12.29	17.93	23.78	29.89	36.16	42.80	49.89	49.89	4 / 3							
reaction time 0.187 interval		5.55	5.64	5.85	6.11	6.27	6.64	7.09		# of strides	12.29	11.49	12.38	13.73	23.78	26.11	2.33
velocity	7.42	9.01	8.87	8.55	8.18	7.97	7.53	7.05	8.02		192.0	8.14	8.70	8.08	7.28	8.41	7.66
<b>Ellis, Kendall (USA) (1996)</b> time	6.79	12.39	18.13	24.02	30.22	36.64	43.19	50.40	50.40	2 / 4							
reaction time 0.215 interval		5.60	5.74	5.89	6.20	6.42	6.55	7.21		# of strides	12.39	11.63	12.62	13.76	24.02	26.38	2.36



velocity	7.36	8.93	8.71	8.49	8.06	7.79	7.63	6.93	7.94	183.2	8.07	8.60	7.92	7.27	8.33	7.58	
<b>Gómez, Roxana (CUB) (1999)</b> time	6.98	12.59	18.29	24.18	30.32	36.68	43.32	50.48	50.48	5 / 5							
reaction time 0.209 interval		5.61	5.70	5.89	6.14	6.36	6.64	7.16		# of strides	12.59	11.59	12.50	13.80	24.18	26.30	2.12
velocity	7.16	8.91	8.77	8.49	8.14	7.86	7.53	6.98	7.92	191.0	7.94	8.63	8.00	7.25	8.27	7.60	
<b>Morán, Paola (MEX) (1997)</b> time	6.71	12.39	18.22	24.27	30.51	36.92	43.59	50.73	50.73	9 / 6							
reaction time 0.183 interval		5.68	5.83	6.05	6.24	6.41	6.67	7.14		# of strides	12.39	11.88	12.65	13.81	24.27	26.46	2.19
velocity	7.45	8.80	8.58	8.26	8.01	7.80	7.50	7.00	7.88	188.7	8.07	8.42	7.91	7.24	8.24	7.56	
<b>Williams, Stacey-Ann (JAM)</b> time	6.77	12.27	18.06	24.02	30.17	36.62	43.41	50.79	50.79	8 / 7							
reaction time 0.153 interval		5.50	5.79	5.96	6.15	6.45	6.79	7.38		# of strides	12.27	11.75	12.60	14.17	24.02	26.77	2.75
velocity	7.39	9.09	8.64	8.39	8.13	7.75	7.36	6.78	7.88	192.5	8.15	8.51	7.94	7.06	8.33	7.47	
<b>Coetzee, Miranda Charlene (time)</b>	6.87	12.54	18.28	24.32	30.63	37.13	44.03	51.60	51.60	3 / 8							
reaction time 0.217 interval		5.67	5.74	6.04	6.31	6.50	6.90	7.57		# of strides	12.54	11.78	12.81	14.47	24.32	27.28	2.96
velocity	7.28	8.82	8.71	8.28	7.92	7.69	7.25	6.61	7.75	193.0	7.97	8.49	7.81	6.91	8.22	7.33	

## Semi-Final 2 date 07-Aug-24

Paris 2024 Olympic Games - Results Book (2024)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Paulino, Marileidy (DOM) (19)</b> time	6.60	12.00	17.45	23.13	29.07	35.33	41.84	49.21	49.21	6 / 1							
reaction time 0.195 interval		5.40	5.45	5.68	5.94	6.26	6.51	7.37		# of strides	12.00	11.13	12.20	13.88	23.13	26.08	2.95
velocity	7.58	9.26	9.17	8.80	8.42	7.99	7.68	6.78	8.13	173.0	8.33	8.98	8.20	7.20	8.65	7.67	
<b>Holmes, Alexis (USA) (2000)</b> time	6.63	12.17	17.83	23.81	29.97	36.42	42.97	50.00	50.00	5 / 2							
reaction time 0.164 interval		5.54	5.66	5.98	6.16	6.45	6.55	7.03		# of strides	12.17	11.64	12.61	13.58	23.81	26.19	2.38
velocity	7.54	9.03	8.83	8.36	8.12	7.75	7.63	7.11	8.00	182.5	8.22	8.59	7.93	7.36	8.40	7.64	
<b>Nielsen, Lavi (GBR) (1996)</b> time	6.63	12.13	17.73	23.63	29.84	36.39	43.25	50.69	50.69	7 / 3							
reaction time 0.158 interval		5.50	5.60	5.90	6.21	6.55	6.86	7.44		# of strides	12.13	11.50	12.76	14.30	23.63	27.06	3.43
velocity	7.54	9.09	8.93	8.47	8.05	7.63	7.29	6.72	7.89	194.0	8.24	8.70	7.84	6.99	8.46	7.39	
<b>Pryce, Nickisha (JAM) (2000)</b> time	6.59	11.98	17.57	23.47	29.65	36.15	43.07	50.77	50.77	8 / 4							
reaction time 0.160 interval		5.39	5.59	5.90	6.18	6.50	6.92	7.70		# of strides	11.98	11.49	12.68	14.62	23.47	27.30	3.83
velocity	7.59	9.28	8.94	8.47	8.09	7.69	7.23	6.49	7.88	189.0	8.35	8.70	7.89	6.84	8.52	7.33	
<b>Miklos, Andrea (ROU) (1999)</b> time	6.76	12.28	17.98	23.95	30.20	36.76	43.52	50.78	50.78	9 / 5							
reaction time 0.158 interval		5.52	5.70	5.97	6.25	6.56	6.76	7.26		# of strides	12.28	11.67	12.81	14.02	23.95	26.83	2.88
velocity	7.40	9.06	8.77	8.38	8.00	7.62	7.40	6.89	7.88	203.0	8.14	8.57	7.81	7.13	8.35	7.45	
<b>Onojuwewwo, Ella (NGR) (2)</b> time	6.77	12.31	18.01	23.95	30.13	36.69	43.58	51.05	51.05	3 / 6							
reaction time 0.188 interval		5.54	5.70	5.94	6.18	6.56	6.89	7.47		# of strides	12.31	11.64	12.74	14.36	23.95	27.10	3.15
velocity	7.39	9.03	8.77	8.42	8.09	7.62	7.26	6.69	7.84	195.0	8.12	8.59	7.85	6.96	8.35	7.38	
<b>Gogl-Walli, Susanne (AUT) (time)</b>	6.88	12.47	18.22	24.25	30.49	37.09	43.89	51.17	51.17	4 / 7							
reaction time 0.163 interval		5.59	5.75	6.03	6.24	6.60	6.80	7.28		# of strides	12.47	11.78	12.84	14.08	24.25	26.92	2.67
velocity	7.27	8.94	8.70	8.29	8.01	7.58	7.35	6.87	7.82	194.0	8.02	8.49	7.79	7.10	8.25	7.43	
<b>Manuel, Lurdes Gloria (CZE) time</b>	6.95	12.59	18.29	24.18	30.42	37.01	43.92	51.42	51.42	2 / 8							
reaction time 0.167 interval		5.64	5.70	5.89	6.24	6.59	6.91	7.50		# of strides	12.59	11.59	12.83	14.41	24.18	27.24	3.06
velocity	7.19	8.87	8.77	8.49	8.01	7.59	7.24	6.67	7.78	191.7	7.94	8.63	7.79	6.94	8.27	7.34	

## Semi-Final 1 date 07-Aug-24

Paris 2024 Olympic Games - Results Book (2024)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Naser, Salwa Eid (BRN) (1991)</b> time	6.49	11.81	17.27	23.00	28.96	35.21	41.86	49.08	49.08	7 / 1							
reaction time 0.167 interval		5.32	5.46	5.73	5.96	6.25	6.65	7.22		# of strides	11.81	11.19	12.21	13.87	23.00	26.08	3.08
velocity	7.70	9.40	9.16	8.73	8.39	8.00	7.52	6.93	8.15	187.0	8.47	8.94	8.19	7.21	8.70	7.67	
<b>Adeleke, Rhasidat (IRL) (200)</b> time	6.62	12.07	17.54	23.22	29.16	35.44	42.26	49.95	49.95	8 / 2							
reaction time 0.159 interval		5.45	5.47	5.68	5.94	6.28	6.82	7.69		# of strides	12.07	11.15	12.22	14.51	23.22	26.73	3.51
velocity	7.55	9.17	9.14	8.80	8.42	7.96	7.33	6.50	8.01	187.7	8.29	8.97	8.18	6.89	8.61	7.48	
<b>Jæger, Henriette (NOR) (200)</b> time	6.61	12.09	17.68	23.53	29.66	36.11	42.89	50.17	50.17	4 / 3							
reaction time 0.129 interval		5.48	5.59	5.85	6.13	6.45	6.78	7.28		# of strides	12.09	11.44	12.58	14.06	23.53	26.64	3.11
velocity	7.56	9.12	8.94	8.55	8.16	7.75	7.37	6.87	7.97	194.0	8.27	8.74	7.95	7.11	8.50	7.51	
<b>Klaver, Lieke (NED) (1998)</b> time	6.62	12.01	17.53	23.33	29.45	35.96	42.86	50.44	50.44	6 / 4							
reaction time 0.151 interval		5.39	5.52	5.80	6.12	6.51	6.90	7.58		# of strides	12.01	11.32	12.63	14.48	23.33	27.11	3.78
velocity	7.55	9.28	9.06	8.62	8.17	7.68	7.25	6.60	7.93	188.0	8.33	8.83	7.92	6.91	8.57	7.38	
<b>Ohurougu, Victoria (GBR) (1)</b> time	6.76	12.21	17.80	23.76	30.03	36.63	43.61	51.14	51.14	3 / 5							
reaction time 0.189 interval		5.45	5.59	5.96	6.27	6.60	6.98	7.53		# of strides	12.21	11.55	12.87	14.51	23.76	27.38	3.62
velocity	7.40	9.17	8.94	8.39	7.97	7.58	7.16	6.64	7.82	194.0	8.19	8.66	7.77	6.89	8.42	7.30	
<b>Butler, Aaliyah (USA) (2003)</b> time	6.61	12.00	17.57	23.44	29.62	36.18	43.24	51.18	51.18	5 / 6							
reaction time 0.160 interval		5.39	5.57	5.87	6.18	6.56	7.06	7.94		# of strides	12.00	11.44	12.74	15.00	23.44	27.74	4.30
velocity	7.56	9.28	8.98	8.52	8.09	7.62	7.08	6.30	7.82	196.0	8.33	8.74	7.85	6.67	8.53	7.21	
<b>Scott, Gabby (PUR) (1997)</b> time	6.76	12.36	18.11	24.10	30.40	36.99	43.90	51.22	51.22	2 / 7							
reaction time 0.164 interval		5.60	5.75	5.99	6.30	6.59	6.91	7.32		# of strides	12.36	11.74	12.89	14.23	24.10	27.12	3.02
velocity	7.40	8.93	8.70	8.35	7.94	7.59	7.24	6.83	7.81	185.2	8.09	8.52	7.76	7.03	8.30	7.37	
<b>Bromfield, Junelle (JAM) (19)</b> time	6.75	12.26	17.97	23.92	30.16	36.86	44.05	51.93	51.93	9 / 8							
reaction time 0.187 interval		5.51	5.71	5.95	6.24	6.70	7.19	7.88		# of strides	12.26	11.66	12.94	15.07	23.92	28.01	4.09
velocity	7.41	9.07	8.76	8.40	8.01	7.46	6.95	6.35	7.70		8.16	8.58	7.73	6.64	8.36	7.14	

## Repechage 4 date 06-Aug-24

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WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation



velocity	7.32	9.12	8.68	8.33	8.20	7.85	7.41	6.85	7.91	192.0	8.12	8.50	8.02	7.12	8.31	7.54	
<b>Święty-Ersetic, Justyna (POL)</b> time	7.01	12.63	18.42	24.40	30.61	37.01	43.58	50.89	50.89	4 / 2							
reaction time 0.229 interval		5.62	5.79	5.98	6.21	6.40	6.57	7.31		# of strides	12.63	11.77	12.61	13.88	24.40	26.49	2.09
velocity	7.13	8.90	8.64	8.36	8.05	7.81	7.61	6.84	7.86	201.7	7.92	8.50	7.93	7.20	8.20	7.55	
<b>Mawdsley, Sharlene (IRL) (19</b> time	6.76	12.37	18.14	24.09	30.29	36.81	43.69	51.18	51.18	3 / 3							
reaction time 0.169 interval		5.61	5.77	5.95	6.20	6.52	6.88	7.49		# of strides	12.37	11.72	12.72	14.37	24.09	27.09	3.00
velocity	7.40	8.91	8.67	8.40	8.06	7.67	7.27	6.68	7.82	194.0	8.08	8.53	7.86	6.96	8.30	7.38	
<b>Petržilková, Tereza (CZE) (19</b> time	6.96	12.72	18.65	24.76	30.95	37.36	44.12	51.46	51.46	7 / 4							
reaction time 0.170 interval		5.76	5.93	6.11	6.19	6.41	6.76	7.34		# of strides	12.72	12.04	12.60	14.10	24.76	26.70	1.94
velocity	7.18	8.68	8.43	8.18	8.08	7.80	7.40	6.81	7.77	191.5	7.86	8.31	7.94	7.09	8.08	7.49	
<b>Abrams, Aliyah (GUY) (1997)</b> time	6.81	12.45	18.31	24.33	30.61	37.18	44.20	51.84	51.84	8 / 5							
reaction time 0.174 interval		5.64	5.86	6.02	6.28	6.57	7.02	7.64		# of strides	12.45	11.88	12.85	14.66	24.33	27.51	3.18
velocity	7.34	8.87	8.53	8.31	7.96	7.61	7.12	6.54	7.72	203.0	8.03	8.42	7.78	6.82	8.22	7.27	
<b>Kiran, Pahal (IND) (2000)</b> time	6.84	12.50	18.41	24.59	31.03	37.76	44.86	52.59	52.59	6 / 6							
reaction time 0.185 interval		5.66	5.91	6.18	6.44	6.73	7.10	7.73		# of strides	12.50	12.09	13.17	14.83	24.59	28.00	3.41
velocity	7.31	8.83	8.46	8.09	7.76	7.43	7.04	6.47	7.61	186.0	8.00	8.27	7.59	6.74	8.13	7.14	

## Heat 6

date 05-Aug-24

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	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Adeleke, Rhasidat (IRL) (200)</b> time	6.59	12.02	17.55	23.40	29.45	35.77	42.45	50.09	50.09	5 / 1							
reaction time 0.162 interval		5.43	5.53	5.85	6.05	6.32	6.68	7.64		# of strides	12.02	11.38	12.37	14.32	23.40	26.69	3.29
velocity	7.59	9.21	9.04	8.55	8.26	7.91	7.49	6.54	7.99	187.0	8.32	8.79	8.08	6.98	8.55	7.49	
<b>Holmes, Alexis (USA) (2000)</b> time	6.58	11.99	17.65	23.63	29.96	36.44	43.16	50.35	50.35	7 / 2							
reaction time 0.144 interval		5.41	5.66	5.98	6.33	6.48	6.72	7.19		# of strides	11.99	11.64	12.81	13.91	23.63	26.72	3.09
velocity	7.60	9.24	8.83	8.36	7.90	7.72	7.44	6.95	7.94	178.0	8.34	8.59	7.81	7.19	8.46	7.49	
<b>Bromfield, Junelle (JAM) (19</b> time	6.80	12.30	18.09	24.11	30.42	36.95	43.88	51.36	51.36	8 / 3							
reaction time 0.198 interval		5.50	5.79	6.02	6.31	6.53	6.93	7.48		# of strides	12.30	11.81	12.84	14.41	24.11	27.25	3.14
velocity	7.35	9.09	8.64	8.31	7.92	7.66	7.22	6.68	7.79	179.0	8.13	8.47	7.79	6.94	8.30	7.34	
<b>Coetzee, Miranda (RSA) (19</b> time	6.56	11.96	17.52	23.35	29.53	36.10	43.39	51.58	51.58	2 / 4							
reaction time 0.149 interval		5.40	5.56	5.83	6.18	6.57	7.29	8.19		# of strides	11.96	11.39	12.75	15.48	23.35	28.23	4.88
velocity	7.62	9.26	8.99	8.58	8.09	7.61	6.86	6.11	7.75	199.0	8.36	8.78	7.84	6.46	8.57	7.08	
<b>Vondrová, Lada (CZE) (1999)</b> time	6.80	12.43	18.24	24.33	30.63	37.21	44.20	51.80	51.80	6 / 5							
reaction time 0.179 interval		5.63	5.81	6.09	6.30	6.58	6.99	7.60		# of strides	12.43	11.90	12.88	14.59	24.33	27.47	3.14
velocity	7.35	8.88	8.61	8.21	7.94	7.60	7.15	6.58	7.72	194.0	8.05	8.40	7.76	6.85	8.22	7.28	
<b>Gale, Lauren (CAN) (2000)</b> time	6.80	12.35	18.09	24.20	30.72	37.72	45.16	53.13	53.13	3 / 6							
reaction time 0.207 interval		5.55	5.74	6.11	6.52	7.00	7.44	7.97		# of strides	12.35	11.85	13.52	15.41	24.20	28.93	4.73
velocity	7.35	9.01	8.71	8.18	7.67	7.14	6.72	6.27	7.53	181.0	8.10	8.44	7.40	6.49	8.26	6.91	
<b>Aguilar, Evelyn (COL) (1993)</b> time	6.97	12.74	18.64	24.72	31.09	37.80	45.12	53.36	53.36	4 / 7							
reaction time 0.165 interval		5.77	5.90	6.08	6.37	6.71	7.32	8.24		# of strides	12.74	11.98	13.08	15.56	24.72	28.64	3.92
velocity	7.17	8.67	8.47	8.22	7.85	7.45	6.83	6.07	7.50	185.0	7.85	8.35	7.65	6.43	8.09	6.98	

## Heat 5

date 05-Aug-24

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	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Paulino, Marileidy (DOM) (19</b> time	6.73	12.20	17.74	23.52	29.54	35.77	42.25	49.42	49.42	5 / 1							
reaction time 0.164 interval		5.47	5.54	5.78	6.02	6.23	6.48	7.17		# of strides	12.20	11.32	12.25	13.65	23.52	25.90	2.38
velocity	7.43	9.14	9.03	8.65	8.31	8.03	7.72	6.97	8.09	174.0	8.20	8.83	8.16	7.33	8.50	7.72	
<b>Butler, Aaliyah (USA) (2003)</b> time	6.83	12.48	18.29	24.31	30.40	36.67	43.27	50.52	50.52	7 / 2							
reaction time 0.155 interval		5.65	5.81	6.02	6.09	6.27	6.60	7.25		# of strides	12.48	11.83	12.36	13.85	24.31	26.21	1.90
velocity	7.32	8.85	8.61	8.31	8.21	7.97	7.58	6.90	7.92	190.0	8.01	8.45	8.09	7.22	8.23	7.63	
<b>Gogl-Walli, Susanne (AUT) (</b> time	6.82	12.34	18.08	24.13	30.36	36.84	43.60	50.67	50.67	6 / 3							
reaction time 0.168 interval		5.52	5.74	6.05	6.23	6.48	6.76	7.07	PB	# of strides	12.34	11.79	12.71	13.83	24.13	26.54	2.41
velocity	7.33	9.06	8.71	8.26	8.03	7.72	7.40	7.07	7.89	191.0	8.10	8.48	7.87	7.23	8.29	7.54	
<b>Mawdsley, Sharlene (IRL) (19</b> time	6.77	12.42	18.22	24.26	30.48	36.87	43.50	50.71	50.71	8 / 4							
reaction time 0.147 interval		5.65	5.80	6.04	6.22	6.39	6.63	7.21	PB	# of strides	12.42	11.84	12.61	13.84	24.26	26.45	2.19
velocity	7.39	8.85	8.62	8.28	8.04	7.82	7.54	6.93	7.89	194.0	8.05	8.45	7.93	7.23	8.24	7.56	
<b>Abrams, Aliyah (GUY) (1997)</b> time	6.78	12.32	18.02	23.98	30.25	36.91	43.95	51.55	51.55	4 / 5							
reaction time 0.163 interval		5.54	5.70	5.96	6.27	6.66	7.04	7.60		# of strides	12.32	11.66	12.93	14.64	23.98	27.57	3.59
velocity	7.37	9.03	8.77	8.39	7.97	7.51	7.10	6.58	7.76	203.7	8.12	8.58	7.73	6.83	8.34	7.25	
<b>Manuel, Lurdes Gloria (CZE)</b> time	7.28	12.93	18.72	24.70	30.93	37.51	44.57	52.20	52.20	9 / 6							
reaction time 0.175 interval		5.65	5.79	5.98	6.23	6.58	7.06	7.63		# of strides	12.93	11.77	12.81	14.69	24.70	27.50	2.80
velocity	6.87	8.85	8.64	8.36	8.03	7.60	7.08	6.55	7.66	177.0	7.73	8.50	7.81	6.81	8.10	7.27	
<b>Kiran, Pahal (IND) (2000)</b> time	6.87	12.61	18.57	24.77	31.23	37.80	44.82	52.51	52.51	2 / 7							
reaction time 0.181 interval		5.74	5.96	6.20	6.46	6.57	7.02	7.69		# of strides	12.61	12.16	13.03	14.71	24.77	27.74	2.97
velocity	7.28	8.71	8.39	8.06	7.74	7.61	7.12	6.50	7.62	193.0	7.93	8.22	7.67	6.80	8.07	7.21	
<b>Bolingo, Cynthia (BEL) (199</b> time	6.80	12.48	18.34	24.52	31.10	37.94	45.11	52.77	52.77	3 / 8							
reaction time 0.172 interval		5.68	5.86	6.18	6.58	6.84	7.17	7.66		# of strides	12.48	12.04	13.42	14.83	24.52	28.25	3.73
velocity	7.35	8.80	8.53	8.09	7.60	7.31	6.97	6.53	7.58	180.0	8.01	8.31	7.45	6.74	8.16	7.08	

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<b>Kaczmarek, Natalia (POL) (1981)</b>	time	6.71	12.17	17.72	23.51	29.71	36.10	42.86	49.98	49.98	4 / 1							
	reaction time	0.169	interval	5.46	5.55	5.79	6.20	6.39	6.76	7.12	# of strides	12.17	11.34	12.59	13.88	23.51	26.47	2.96
	velocity	7.45	9.16	9.01	8.64	8.06	7.82	7.40	7.02	8.00	189.0	8.22	8.82	7.94	7.20	8.51	7.56	
<b>Gómez, Roxana (CUB) (1999)</b>	time	6.87	12.42	18.12	24.02	30.13	36.49	43.24	50.38	50.38	9 / 2							
	reaction time	0.178	interval	5.55	5.70	5.90	6.11	6.36	6.75	7.14	# of strides	12.42	11.60	12.47	13.89	24.02	26.36	2.34
	velocity	7.28	9.01	8.77	8.47	8.18	7.86	7.41	7.00	7.94	189.0	8.05	8.62	8.02	7.20	8.33	7.59	
<b>Williams, Sada (BAR) (1997)</b>	time	6.67	12.20	17.90	23.80	29.93	36.20	43.00	50.45	50.45	5 / 3							
	reaction time	0.204	interval	5.53	5.70	5.90	6.13	6.27	6.80	7.45	# of strides	12.20	11.60	12.40	14.25	23.80	26.65	2.85
	velocity	7.50	9.04	8.77	8.47	8.16	7.97	7.35	6.71	7.93	191.0	8.20	8.62	8.06	7.02	8.40	7.50	
<b>Ohurougu, Victoria (GBR) (1981)</b>	time	6.85	12.38	18.06	24.04	30.22	36.64	43.50	50.93	50.93	6 / 4							
	reaction time	0.196	interval	5.53	5.68	5.98	6.18	6.42	6.86	7.43	# of strides	12.38	11.66	12.60	14.29	24.04	26.89	2.85
	velocity	7.30	9.04	8.80	8.36	8.09	7.79	7.29	6.73	7.85	193.2	8.08	8.58	7.94	7.00	8.32	7.44	
<b>Vaičule, Gunta (LAT) (1995)</b>	time	6.85	12.42	18.09	23.93	30.05	36.42	43.34	51.13	51.13	3 / 5							
	reaction time	0.185	interval	5.57	5.67	5.84	6.12	6.37	6.92	7.79	# of strides	12.42	11.51	12.49	14.71	23.93	27.20	3.27
	velocity	7.30	8.98	8.82	8.56	8.17	7.85	7.23	6.42	7.82	194.5	8.05	8.69	8.01	6.80	8.36	7.35	
<b>Ponette, Helena (BEL) (2000)</b>	time	7.03	12.58	18.30	24.21	30.42	36.96	44.05	51.75	51.75	2 / 6							
	reaction time	0.160	interval	5.55	5.72	5.91	6.21	6.54	7.09	7.70	# of strides	12.58	11.63	12.75	14.79	24.21	27.54	3.33
	velocity	7.11	9.01	8.74	8.46	8.05	7.65	7.05	6.49	7.73	7.95	8.60	7.84	6.76	8.26	7.26		
<b>Joseph, Esther (NGR) (2003)</b>	time	6.72	12.25	18.06	24.17	30.46	37.12	44.32	52.13	52.13	8 / 7							
	reaction time	0.219	interval	5.53	5.81	6.11	6.29	6.66	7.20	7.81	# of strides	12.25	11.92	12.95	15.01	24.17	27.96	3.79
	velocity	7.44	9.04	8.61	8.18	7.95	7.51	6.94	6.40	7.67	8.16	8.39	7.72	6.66	8.27	7.15		
<b>Miller-Uibo, Shaunae (BAH) (1981)</b>	time	6.84	12.50	18.35	24.49	32.05			2:22.29	2:22.29	7 / 7							
	reaction time	0.143	interval	5.66	5.85	6.14	7.56				# of strides	12.50	11.99			24.49		
	velocity	7.31	8.83	8.55	8.14	6.61					8.00	8.34			8.17			

## Heat 3

date 05-Aug-24

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		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Anning, Amber (GBR) (2000)</b>	time	6.54	11.94	17.55	23.46	29.73	36.22	42.83	49.68	49.68	8 / 1							
	reaction time	0.185	interval	5.40	5.61	5.91	6.27	6.49	6.61	6.85	# of strides	11.94	11.52	12.76	13.46	23.46	26.22	2.76
	velocity	7.65	9.26	8.91	8.46	7.97	7.70	7.56	7.30	8.05	8.38	8.68	7.84	7.43	8.53	7.63		
<b>Klaver, Lieke (NED) (1998)</b>	time	6.67	12.07	17.68	23.47	29.59	36.07	42.83	49.96	49.96	2 / 2							
	reaction time	0.162	interval	5.40	5.61	5.79	6.12	6.48	6.76	7.13	# of strides	12.07	11.40	12.60	13.89	23.47	26.49	3.02
	velocity	7.50	9.26	8.91	8.64	8.17	7.72	7.40	7.01	8.01	186.0	8.29	8.77	7.94	7.20	8.52	7.55	
<b>Morán, Paola (MEX) (1997)</b>	time	6.67	12.37	18.30	24.45	30.65	37.08	43.82	51.04	51.04	6 / 3							
	reaction time	0.173	interval	5.70	5.93	6.15	6.20	6.43	6.74	7.22	# of strides	12.37	12.08	12.63	13.96	24.45	26.59	2.14
	velocity	7.50	8.77	8.43	8.13	8.06	7.78	7.42	6.93	7.84	190.0	8.08	8.28	7.92	7.16	8.18	7.52	
<b>Weil, Martina (CHI) (1999)</b>	time	6.76	12.33	18.05	24.01	30.25	36.66	43.51	51.15	51.15	9 / 4							
	reaction time	0.178	interval	5.57	5.72	5.96	6.24	6.41	6.85	7.64	# of strides	12.33	11.68	12.65	14.49	24.01	27.14	3.13
	velocity	7.40	8.98	8.74	8.39	8.01	7.80	7.30	6.54	7.82	8.11	8.56	7.91	6.90	8.33	7.37		
<b>Mangione, Alice (ITA) (1997)</b>	time	6.91	12.56	18.40	24.61	30.95	37.51	44.30	51.60	51.60	7 / 5							
	reaction time	0.196	interval	5.65	5.84	6.21	6.34	6.56	6.79	7.30	# of strides	12.56	12.05	12.90	14.09	24.61	26.99	2.38
	velocity	7.24	8.85	8.56	8.05	7.89	7.62	7.36	6.85	7.75	7.96	8.30	7.75	7.10	8.13	7.41		
<b>Onojuwewwo, Ella (NGR) (2001)</b>	time	6.66	12.07	17.59	23.36	29.49	36.11	43.36	51.65	51.65	3 / 6							
	reaction time	0.173	interval	5.41	5.52	5.77	6.13	6.62	7.25	8.29	# of strides	12.07	11.29	12.75	15.54	23.36	28.29	4.93
	velocity	7.51	9.24	9.06	8.67	8.16	7.55	6.90	6.03	7.74	199.0	8.29	8.86	7.84	6.44	8.56	7.07	
<b>Marinho, Tiffani (BRA) (1995)</b>	time	6.95	12.75	18.79	24.93	31.25	37.82	44.82	52.62	52.62	4 / 7							
	reaction time	0.188	interval	5.80	6.04	6.14	6.32	6.57	7.00	7.80	# of strides	12.75	12.18	12.89	14.80	24.93	27.69	2.76
	velocity	7.19	8.62	8.28	8.14	7.91	7.61	7.14	6.41	7.60	7.84	8.21	7.76	6.76	8.02	7.22		
<b>Azevedo, Cátia (POR) (1994)</b>	time	6.82	12.40	18.14	24.23	30.66	37.45	44.72	52.73	52.73	5 / 8							
	reaction time	0.191	interval	5.58	5.74	6.09	6.43	6.79	7.27	8.01	# of strides	12.40	11.83	13.22	15.28	24.23	28.50	4.27
	velocity	7.33	8.96	8.71	8.21	7.78	7.36	6.88	6.24	7.59	8.06	8.45	7.56	6.54	8.25	7.02		

## Heat 2

date 05-Aug-24

Paris 2024 Olympic Games - Results Book (2024)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Pryce, Nickisha (JAM) (2000)</b>	time	6.72	12.32	18.10	24.07	30.20	36.37	42.86	50.02	50.02	8 / 1							
	reaction time	0.187	interval	5.60	5.78	5.97	6.13	6.17	6.49	7.16	# of strides	12.32	11.75	12.30	13.65	24.07	25.95	1.88
	velocity	7.44	8.93	8.65	8.38	8.16	8.10	7.70	6.98	8.00	182.0	8.12	8.51	8.13	7.33	8.31	7.71	
<b>Nielsen, Laviai (GBR) (1996)</b>	time	6.69	12.32	18.12	24.15	30.29	36.62	43.26	50.36	50.36	7 / 2							
	reaction time	0.167	interval	5.63	5.80	6.03	6.14	6.33	6.64	7.10	# of strides	12.32	11.83	12.47	13.74	24.15	26.21	2.06
	velocity	7.47	8.88	8.62	8.29	8.14	7.90	7.53	7.04	7.94	194.0	8.12	8.45	8.02	7.28	8.28	7.63	
<b>Jæger, Henriette (NOR) (2001)</b>	time	6.67	12.11	17.79	23.73	29.87	36.23	43.06	50.39	50.39	2 / 3							
	reaction time	0.176	interval	5.44	5.68	5.94	6.14	6.36	6.83	7.33	# of strides	12.11	11.62	12.50	14.16	23.73	26.66	2.93
	velocity	7.50	9.19	8.80	8.42	8.14	7.86	7.32	6.82	7.94	8.26	8.61	8.00	7.06	8.43	7.50		
<b>Świąty-Ersetic, Justyna (POL) (1981)</b>	time	6.94	12.51	18.33	24.47	30.71	37.06	43.73	50.95	50.95	4 / 4							
	reaction time	0.192	interval	5.57	5.82	6.14	6.24	6.35	6.67	7.22	# of strides	12.51	11.96	12.59	13.89	24.47	26.48	2.01
	velocity	7.20	8.98	8.59	8.14	8.01	7.87	7.50	6.93	7.85	200.0	7.99	8.36	7.94	7.20	8.17	7.55	
<b>Beer, Ellie (AUS) (2003)</b>	time	6.74	12.23	17.94	24.02	30.29	36.82	43.81	51.47	51.47	6 / 5							
	reaction time	0.183	interval	5.49	5.71	6.08	6.27	6.53	6.99	7.66	# of strides	12.23	11.79	12.80	14.65	24.02	27.45	3.43
	velocity	7.42	9.11	8.76	8.22	7.97	7.66	7.15	6.53	7.77	188.0	8.18	8.48	7.81	6.83	8.33	7.29	

<b>Licona, Lina (COL) (1998)</b>	time	6.90	12.49	18.27	24.37	30.65	37.16	44.18	51.85	51.85	5 / 6							
	reaction time	0.242	interval	5.59	5.78	6.10	6.28	6.51	7.02	7.67	# of strides	12.49	11.88	12.79	14.69	24.37	27.48	3.11
	velocity	7.25	8.94	8.65	8.20	7.96	7.68	7.12	6.52	7.71	204.0	8.01	8.42	7.82	6.81	8.21	7.28	
<b>Sherar, Zoe (CAN) (1999)</b>	time	6.99	12.71	18.48	24.52	30.73	37.20	44.17	51.97	51.97	3 / 7							
	reaction time	0.160	interval	5.72	5.77	6.04	6.21	6.47	6.97	7.80	# of strides	12.71	11.81	12.68	14.77	24.52	27.45	2.93
	velocity	7.15	8.74	8.67	8.28	8.05	7.73	7.17	6.41	7.70	7.87	8.47	7.89	6.77	8.16	7.29		

## Heat 1

date 05-Aug-24

Paris 2024 Olympic Games - Results Book (2024)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
<b>Naser, Salwa Eid (BRN) (1991)</b>	time	6.61	11.93	17.54	23.43	29.57	35.93	42.64	49.91	49.91	3 / 1								
	reaction time	0.148	interval	5.32	5.61	5.89	6.14	6.36	6.71	7.27	# of strides	11.93	11.50	12.50	13.98	23.43	26.48	3.05	
	velocity	7.56	9.40	8.91	8.49	8.14	7.86	7.45	6.88	8.01	187.7	8.38	8.70	8.00	7.15	8.54	7.55		
<b>Williams, Stacey-Ann (JAM)</b>	time	6.72	12.21	18.03	24.09	30.13	36.40	43.01	50.16	50.16	8 / 2								
	reaction time	0.145	interval	5.49	5.82	6.06	6.04	6.27	6.61	7.15	# of strides	12.21	11.88	12.31	13.76	24.09	26.07	1.98	
	velocity	7.44	9.11	8.59	8.25	8.28	7.97	7.56	6.99	7.97	190.0	8.19	8.42	8.12	7.27	8.30	7.67		
<b>Miklos, Andrea (ROU) (1999)</b>	time	6.70	12.13	17.83	23.88	30.14	36.57	43.29	50.54	50.54	4 / 3								
	reaction time	0.149	interval	5.43	5.70	6.05	6.26	6.43	6.72	7.25	PB	# of strides	12.13	11.75	12.69	13.97	23.88	26.66	2.78
	velocity	7.46	9.21	8.77	8.26	7.99	7.78	7.44	6.90	7.91	200.7	8.24	8.51	7.88	7.16	8.38	7.50		
<b>Scott, Gabby (PUR) (1997)</b>	time	6.82	12.39	18.20	24.34	30.66	37.05	43.69	50.74	50.74	2 / 4								
	reaction time	0.170	interval	5.57	5.81	6.14	6.32	6.39	6.64	7.05	NR PB	# of strides	12.39	11.95	12.71	13.69	24.34	26.40	2.06
	velocity	7.33	8.98	8.61	8.14	7.91	7.82	7.53	7.09	7.88	187.7	8.07	8.37	7.87	7.30	8.22	7.58		
<b>Ellis, Kendall (USA) (1996)</b>	time	6.83	12.40	18.13	24.18	30.41	36.86	43.57	51.16	51.16	5 / 5								
	reaction time	0.195	interval	5.57	5.73	6.05	6.23	6.45	6.71	7.59	# of strides	12.40	11.78	12.68	14.30	24.18	26.98	2.80	
	velocity	7.32	8.98	8.73	8.26	8.03	7.75	7.45	6.59	7.82	185.7	8.06	8.49	7.89	6.99	8.27	7.41		
<b>Becker, Sophie (IRL) (1997)</b>	time	6.65	12.14	17.81	23.85	30.25	36.98	44.11	51.84	51.84	6 / 6								
	reaction time	0.165	interval	5.49	5.67	6.04	6.40	6.73	7.13	7.73	# of strides	12.14	11.71	13.13	14.86	23.85	27.99	4.14	
	velocity	7.52	9.11	8.82	8.28	7.81	7.43	7.01	6.47	7.72	199.2	8.24	8.54	7.62	6.73	8.39	7.15		
<b>Petržilková, Tereza (CZE) (19)</b>	time	6.97	12.61	18.53	24.70	31.00	37.54	44.44	51.92	51.92	9 / 7								
	reaction time	0.192	interval	5.64	5.92	6.17	6.30	6.54	6.90	7.48	# of strides	12.61	12.09	12.84	14.38	24.70	27.22	2.52	
	velocity	7.17	8.87	8.45	8.10	7.94	7.65	7.25	6.68	7.70	7.93	8.27	7.79	6.95	8.10	7.35			
<b>Morauskaitė, Modesta (LTU)</b>	time	6.83	12.41	18.20	24.27	30.52	37.06	44.11	52.00	52.00	7 / 8								
	reaction time	0.175	interval	5.58	5.79	6.07	6.25	6.54	7.05	7.89	# of strides	12.41	11.86	12.79	14.94	24.27	27.73	3.46	
	velocity	7.32	8.96	8.64	8.24	8.00	7.65	7.09	6.34	7.69	198.0	8.06	8.43	7.82	6.69	8.24	7.21		

## 2024 Japanese National High School Championships (Fukuoka, JPN)

## FINAL

date 28-Jul-24

Takashima (2024) - national high school sports festival - biomechanics data

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Hatakeyama, Konomi (JPN)</b>	time	13.41	26.51	40.21	54.89	54.89	54.89	54.89	54.89	54.89	9 / 1							
	reaction time	0.200	interval	13.10	13.70	14.68	14.68	14.68	14.68	PB	# of strides	13.41	13.10	13.70	14.68	26.51	28.38	1.87
	velocity	7.46	7.63	7.30	6.81	7.29	7.29	7.29	7.29	7.29	7.46	7.63	7.30	6.81	7.54	7.05		
<b>Saito, Akari (JPN) (2007)</b>	time	13.78	26.88	40.44	54.95	54.95	54.95	54.95	54.95	54.95	5 / 2							
	reaction time	0.241	interval	13.10	13.56	14.51	14.51	14.51	14.51	14.51	# of strides	13.78	13.10	13.56	14.51	26.88	28.07	1.19
	velocity	7.26	7.63	7.37	6.89	7.28	7.28	7.28	7.28	7.28	7.26	7.63	7.37	6.89	7.44	7.13		
<b>Nagamachi, Aoi (JPN) (2006)</b>	time	13.86	26.88	40.77	55.35	55.35	55.35	55.35	55.35	55.35	7 / 3							
	reaction time	0.291	interval	13.02	13.89	14.58	14.58	14.58	14.58	14.58	# of strides	13.86	13.02	13.89	14.58	26.88	28.47	1.59
	velocity	7.22	7.68	7.20	6.86	7.23	7.23	7.23	7.23	7.23	7.22	7.68	7.20	6.86	7.44	7.02		
<b>Kikuchi Himeka (JPN) (2006)</b>	time	13.70	27.24	41.02	55.50	55.50	55.50	55.50	55.50	55.50	6 / 4							
	reaction time	0.227	interval	13.54	13.78	14.48	14.48	14.48	14.48	14.48	# of strides	13.70	13.54	13.78	14.48	27.24	28.26	1.02
	velocity	7.30	7.39	7.26	6.91	7.21	7.21	7.21	7.21	7.21	7.30	7.39	7.26	6.91	7.34	7.08		
<b>Yajima, Aki (JPN) (2007)</b>	time	13.93	27.03	40.54	56.10	56.10	56.10	56.10	56.10	56.10	4 / 5							
	reaction time	0.200	interval	13.10	13.51	15.56	15.56	15.56	15.56	15.56	# of strides	13.93	13.10	13.51	15.56	27.03	29.07	2.04
	velocity	7.18	7.63	7.40	6.43	7.13	7.13	7.13	7.13	7.13	7.18	7.63	7.40	6.43	7.40	6.88		
<b>Williams, Shamayamian (JPN)</b>	time	13.53	27.06	41.02	56.60	56.60	56.60	56.60	56.60	56.60	3 / 6							
	reaction time	0.244	interval	13.53	13.96	15.58	15.58	15.58	15.58	15.58	# of strides	13.53	13.53	13.96	15.58	27.06	29.54	2.48
	velocity	7.39	7.39	7.16	6.42	7.07	7.07	7.07	7.07	7.07	7.39	7.39	7.16	6.42	7.39	6.77		
<b>Tsumoto, Erika (JPN) (2007)</b>	time	13.56	27.31	41.54	57.50	57.50	57.50	57.50	57.50	57.50	2 / 7							
	reaction time	0.199	interval	13.75	14.23	15.96	15.96	15.96	15.96	15.96	# of strides	13.56	13.75	14.23	15.96	27.31	30.19	2.88
	velocity	7.37	7.27	7.03	6.27	6.96	6.96	6.96	6.96	6.96	7.37	7.27	7.03	6.27	7.32	6.62		
<b>Matsuda, Yowa (JPN) (2006)</b>	time	15.53	30.80	45.91	61.76	61.76	61.76	61.76	61.76	61.76	8 / 8							
	reaction time	interval	15.27	15.11	15.85	15.85	15.85	15.85	15.85	15.85	# of strides	15.53	15.27	15.11	15.85	30.80	30.96	0.16
	velocity	6.44	6.55	6.62	6.31	6.48	6.48	6.48	6.48	6.48	6.44	6.55	6.62	6.31	6.49	6.46		

## 2024 London Athletics Meet (London, GBR)

## FINAL

date 20-Jul-24

Omega Timing (2024) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
<b>Pryce, Nickisha (JAM) (2001)</b>	time	6.61	11.99	17.46	23.17	29.17	35.29	41.67	48.57	48.57	6 / 1								
	reaction time	0.159	interval	5.38	5.47	5.71	6.00	6.12	6.38	6.90	NR PB	# of strides	11.99	11.18	12.12	13.28	23.17	25.40	2.23
	velocity	7.56	9.29	9.14	8.76	8.33	8.17	7.84	7.25	8.24	183.0	8.34	8.94	8.25	7.53	8.63	7.87		
<b>Kaczmarek, Natalia (POL) (19)</b>	time	6.70	12.21	17.63	23.31	29.28	35.51	41.93	48.90	48.90	5 / 2								
	reaction time	0.169	interval	5.51	5.42	5.68	5.97	6.23	6.42	6.97	NR PB	# of strides	12.21	11.10	12.20	13.39	23.31	25.59	2.28
	velocity	7.46	9.07	9.23	8.80	8.38	8.03	7.79	7.17	8.18	191.5	8.19	9.01	8.20	7.47	8.58	7.82		



<b>Klaver, Lieke (NED) (1998)</b>	time	6.59	11.90	17.35	23.05	29.11	35.43	42.18	49.58	49.58	3 / 3							
	reaction time	0.160	5.31	5.45	5.70	6.06	6.32	6.75	7.40	<b>PB</b>	# of strides	11.90	11.15	12.38	14.15	23.05	26.53	3.48
	interval velocity		7.59	9.42	9.17	8.77	8.25	7.91	7.41	6.76	8.07	8.40	8.97	8.08	7.07	8.68	7.54	
<b>Anning, Amber (GBR) (2000)</b>	time	6.61	12.09	17.73	23.59	29.80	36.18	42.76	49.63	49.63	4 / 4							
	reaction time	0.192	5.48	5.64	5.86	6.21	6.38	6.58	6.87		# of strides	12.09	11.50	12.59	13.45	23.59	26.04	2.45
	interval velocity		7.56	9.12	8.87	8.53	8.05	7.84	7.60	7.28	8.06	8.27	8.70	7.94	7.43	8.48	7.68	
<b>Nielsen, Laviai (GBR) (1996)</b>	time	6.61	12.12	17.77	23.68	29.82	36.18	42.80	49.87	49.87	7 / 5							
	reaction time	0.144	5.51	5.65	5.91	6.14	6.36	6.62	7.07	<b>PB</b>	# of strides	12.12	11.56	12.50	13.69	23.68	26.19	2.51
	interval velocity		7.56	9.07	8.85	8.46	8.14	7.86	7.55	7.07	8.02	8.25	8.65	8.00	7.30	8.45	7.64	
<b>Irby-Jackson, Lynna (USA) (time)</b>	time	6.64	12.14	17.82	23.67	29.78	36.15	42.98	50.71	50.71	2 / 6							
	reaction time	0.173	5.50	5.68	5.85	6.11	6.37	6.83	7.73		# of strides	12.14	11.53	12.48	14.56	23.67	27.04	3.37
	interval velocity		7.53	9.09	8.80	8.55	8.18	7.85	7.32	6.47	7.89	8.24	8.67	8.01	6.87	8.45	7.40	
<b>Ohurougu, Victoria (GBR) (time)</b>	time	6.96	12.52	18.25	24.19	30.44	36.85	43.59	50.76	50.76	1 / 7							
	reaction time	0.163	5.56	5.73	5.94	6.25	6.41	6.74	7.17		# of strides	12.52	11.67	12.66	13.91	24.19	26.57	2.38
	interval velocity		7.18	8.99	8.73	8.42	8.00	7.80	7.42	6.97	7.88	7.99	8.57	7.90	7.19	8.27	7.53	
<b>Diggs, Talitha (USA) (2002)</b>	time	6.77	12.38	18.15	24.24	30.62	37.25	44.30	52.47	52.47	8 / 8							
	reaction time	0.147	5.61	5.77	6.09	6.38	6.63	7.05	8.17		# of strides	12.38	11.86	13.01	15.22	24.24	28.23	3.99
	interval velocity		7.39	8.91	8.67	8.21	7.84	7.54	7.09	6.12	7.62	8.08	8.43	7.69	6.57	8.25	7.08	

**National FINAL**

date 20-Jul-24

Omega Timing (2024) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>John, Yemi Mary (GBR) (200)</b>	time	6.82	12.54	18.42	24.59	30.92	37.39	44.07	51.18	51.18	4 / 1							
	reaction time	0.178	5.72	5.88	6.17	6.33	6.47	6.68	7.11		# of strides	12.54	12.05	12.80	13.79	24.59	26.59	2.00
	interval velocity		7.33	8.74	8.50	8.10	7.90	7.73	7.49	7.03	7.82	7.97	8.30	7.81	7.25	8.13	7.52	
<b>Yeargin, Nicole (GBR) (1997)</b>	time	6.90	12.64	18.61	24.88	31.30	37.83	44.50	51.64	51.64	6 / 2							
	reaction time	0.167	5.74	5.97	6.27	6.42	6.53	6.67	7.14		# of strides	12.64	12.24	12.95	13.81	24.88	26.76	1.88
	interval velocity		7.25	8.71	8.38	7.97	7.79	7.66	7.50	7.00	7.75	7.91	8.17	7.72	7.24	8.04	7.47	
<b>Pipi, Ama (GBR) (1995)</b>	time	6.81	12.48	18.35	24.47	30.93	37.63	44.45	51.87	51.87	3 / 3							
	reaction time	0.149	5.67	5.87	6.12	6.46	6.70	6.82	7.42		# of strides	12.48	11.99	13.16	14.24	24.47	27.40	2.93
	interval velocity		7.34	8.82	8.52	8.17	7.74	7.46	7.33	6.74	7.71	8.01	8.34	7.60	7.02	8.17	7.30	
<b>Williams, Jodie (GBR) (1993)</b>	time	6.88	12.66	18.61	24.82	31.27	37.88	44.68	52.06	52.06	5 / 4							
	reaction time	0.163	5.78	5.95	6.21	6.45	6.61	6.80	7.38		# of strides	12.66	12.16	13.06	14.18	24.82	27.24	2.42
	interval velocity		7.27	8.65	8.40	8.05	7.75	7.56	7.35	6.78	7.68	7.90	8.22	7.66	7.05	8.06	7.34	
<b>Malik, Poppy (GBR) (2003)</b>	time	6.80	12.58	18.51	24.79	31.27	37.89	44.66	52.23	52.23	1 / 5							
	reaction time	0.163	5.78	5.93	6.28	6.48	6.62	6.77	7.57	<b>PB</b>	# of strides	12.58	12.21	13.10	14.34	24.79	27.44	2.65
	interval velocity		7.35	8.65	8.43	7.96	7.72	7.55	7.39	6.61	7.66	7.95	8.19	7.63	6.97	8.07	7.29	
<b>Kelly, Hannah (GBR) (2000)</b>	time	6.86	12.67	18.71	24.96	31.44	38.05	44.81	52.30	52.30	7 / 6							
	reaction time	0.148	5.81	6.04	6.25	6.48	6.61	6.76	7.49		# of strides	12.67	12.29	13.09	14.25	24.96	27.34	2.38
	interval velocity		7.29	8.61	8.28	8.00	7.72	7.56	7.40	6.68	7.65	7.89	8.14	7.64	7.02	8.01	7.32	
<b>Brier, Hannah (GBR) (1998)</b>	time	6.85	12.77	18.84	25.14	31.61	38.31	45.29	52.94	52.94	8 / 7							
	reaction time	0.150	5.92	6.07	6.30	6.47	6.70	6.98	7.65		# of strides	12.77	12.37	13.17	14.63	25.14	27.80	2.66
	interval velocity		7.30	8.45	8.24	7.94	7.73	7.46	7.16	6.54	7.56	7.83	8.08	7.59	6.84	7.96	7.19	
<b>Newnham, Emily (GBR) (200)</b>	time	7.18	13.00	18.98	25.21	31.64	38.46	45.55	53.48	53.48	2 / 8							
	reaction time	0.134	5.82	5.98	6.23	6.43	6.82	7.09	7.93		# of strides	13.00	12.21	13.25	15.02	25.21	28.27	3.06
	interval velocity		6.96	8.59	8.36	8.03	7.78	7.33	7.05	6.31	7.48	7.69	8.19	7.55	6.66	7.93	7.07	

**2024 Herculis Meeting International d'Athlétisme (Monaco, MON)**

**FINAL**

date 12-Jul-24

Omega Timing (2024) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Adeleke, Rhasidat (IRL) (200)</b>	time	6.69	12.09	17.54	23.25	29.22	35.38	41.93	49.17	49.17	5 / 1							
	reaction time	0.161	5.40	5.45	5.71	5.97	6.16	6.55	7.24		# of strides	12.09	11.16	12.13	13.79	23.25	25.92	2.67
	interval velocity		7.47	9.26	9.17	8.76	8.38	8.12	7.63	6.91	8.14	184.0	8.27	8.96	8.24	7.25	8.60	7.72
<b>Klaver, Lieke (NED) (1998)</b>	time	6.63	11.94	17.35	22.99	29.03	35.37	42.14	49.64	49.64	3 / 2							
	reaction time	0.153	5.31	5.41	5.64	6.04	6.34	6.77	7.50	<b>PB</b>	# of strides	11.94	11.05	12.38	14.27	22.99	26.65	3.66
	interval velocity		7.54	9.42	9.24	8.87	8.28	7.89	7.39	6.67	8.06	185.0	8.38	9.05	8.08	7.01	8.70	7.50
<b>Ellis, Kendall (USA) (1996)</b>	time	6.86	12.40	18.06	23.96	30.20	36.61	43.28	50.39	50.39	4 / 3							
	reaction time	0.224	5.54	5.66	5.90	6.24	6.41	6.67	7.11		# of strides	12.40	11.56	12.65	13.78	23.96	26.43	2.47
	interval velocity		7.29	9.03	8.83	8.47	8.01	7.80	7.50	7.03	7.94	8.06	8.65	7.91	7.26	8.35	7.57	
<b>Brossier, Amandine (FRA) (time)</b>	time	6.81	12.35	18.07	24.03	30.20	36.51	43.20	50.43	50.43	7 / 4							
	reaction time	0.197	5.54	5.72	5.96	6.17	6.31	6.69	7.23	<b>PB</b>	# of strides	12.35	11.68	12.48	13.92	24.03	26.40	2.37
	interval velocity		7.34	9.03	8.74	8.39	8.10	7.92	7.47	6.92	7.93	203.0	8.10	8.56	8.01	7.18	8.32	7.58
<b>Manuel, Lurdes Gloria (CZE) (time)</b>	time	7.05	12.67	18.25	24.08	30.24	36.63	43.37	50.72	50.72	6 / 5							
	reaction time	0.196	5.62	5.58	5.83	6.16	6.39	6.74	7.35		# of strides	12.67	11.41	12.55	14.09	24.08	26.64	2.56
	interval velocity		7.09	8.90	8.96	8.58	8.12	7.82	7.42	6.80	7.89	189.0	7.89	8.76	7.97	7.10	8.31	7.51
<b>Montoya, Emma (FRA) (1996)</b>	time	7.04	12.79	18.66	24.74	30.97	37.44	44.30	51.76	51.76	8 / 6							
	reaction time	0.178	5.75	5.87	6.08	6.23	6.47	6.86	7.46	<b>PB</b>	# of strides	12.79	11.95	12.70	14.32	24.74	27.02	2.28
	interval velocity		7.10	8.70	8.52	8.22	8.03	7.73	7.29	6.70	7.73	7.82	8.37	7.87	6.98	8.08	7.40	
<b>Grebo, Shana (FRA) (2000)</b>	time	6.84	12.45	18.24	24.27	30.71	37.43	44.47	52.02	52.02	2 / 7							
	reaction time	0.194	5.61	5.79	6.03	6.44	6.72	7.04	7.55		# of strides	12.45	11.82	13.16	14.59	24.27	27.75	3.48
	interval velocity																	

velocity	7.31	8.91	8.64	8.29	7.76	7.44	7.10	6.62	7.69	8.03	8.46	7.60	6.85	8.24	7.21
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## 2024 Meeting de Paris (Paris, FRA)

## FINAL

date 07-Jul-24

Omega Timing (2024) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Paulino, Marileidy (DOM) (19)</b> time	6.70	12.24	17.91	23.75	29.77	35.96	42.38	49.20	49.20	5 / 1							
reaction time	0.188	5.54	5.67	5.84	6.02	6.19	6.42	6.82		# of strides	12.24	11.51	12.21	13.24	23.75	25.45	1.70
velocity	7.46	9.03	8.82	8.56	8.31	8.08	7.79	7.33	8.13	171.0	8.17	8.69	8.19	7.55	8.42	7.86	
<b>Kaczmarek, Natalia (POL) (15)</b> time	6.79	12.35	17.95	23.83	30.14	36.41	43.02	49.82	49.82	6 / 2							
reaction time	0.174	5.56	5.60	5.88	6.31	6.27	6.61	6.80		# of strides	12.35	11.48	12.58	13.41	23.83	25.99	2.16
velocity	7.36	8.99	8.93	8.50	7.92	7.97	7.56	7.35	8.03	193.0	8.10	8.71	7.95	7.46	8.39	7.70	
<b>Naser, Salwa Eid (BRN) (199)</b> time	6.77	12.16	17.76	23.65	29.76	36.00	42.69	49.82	49.82	3 / 3							
reaction time	0.171	5.39	5.60	5.89	6.11	6.24	6.69	7.13		# of strides	12.16	11.49	12.35	13.82	23.65	26.17	2.52
velocity	7.39	9.28	8.93	8.49	8.18	8.01	7.47	7.01	8.03	186.0	8.22	8.70	8.10	7.24	8.46	7.64	
<b>Holmes, Alexis (USA) (2000)</b> time	6.68	12.28	18.12	24.13	30.32	36.61	43.16	50.02	50.02	4 / 4							
reaction time	0.175	5.60	5.84	6.01	6.19	6.29	6.55	6.86		# of strides	12.28	11.85	12.48	13.41	24.13	25.89	1.76
velocity	7.49	8.93	8.56	8.32	8.08	7.95	7.63	7.29	8.00	180.2	8.14	8.44	8.01	7.46	8.29	7.72	
<b>Nielsen, Laviai (GBR) (1996)</b> time	6.66	12.29	18.16	24.19	30.34	36.67	43.39	50.67	50.67	8 / 5							
reaction time	0.165	5.63	5.87	6.03	6.15	6.33	6.72	7.28	<b>PB</b>	# of strides	12.29	11.90	12.48	14.00	24.19	26.48	2.29
velocity	7.51	8.88	8.52	8.29	8.13	7.90	7.44	6.87	<b>7.89</b>	192.0	8.14	8.40	8.01	7.14	8.27	7.55	
<b>Klaver, Lieke (NED) (1998)</b> time	6.76	12.28	18.07	24.04	30.20	36.58	43.42	50.89	50.89	7 / 6							
reaction time	0.202	5.52	5.79	5.97	6.16	6.38	6.84	7.47		# of strides	12.28	11.76	12.54	14.31	24.04	26.85	2.81
velocity	7.40	9.06	8.64	8.38	8.12	7.84	7.31	6.69	7.86	186.2	8.14	8.50	7.97	6.99	8.32	7.45	
<b>Miklós, Andrea (ROU) (1999)</b> time	6.81	12.33	17.94	23.88	30.17	36.69	43.60	51.08	51.08	2 / 7							
reaction time	0.188	5.52	5.61	5.94	6.29	6.52	6.91	7.48		# of strides	12.33	11.55	12.81	14.39	23.88	27.20	3.32
velocity	7.34	9.06	8.91	8.42	7.95	7.67	7.24	6.68	7.83	203.0	8.11	8.66	7.81	6.95	8.38	7.35	
<b>Brossier, Amandine (FRA) (1)</b> time	6.82	12.40	18.14	24.08	30.32	36.72	43.69	51.27	51.27	1 / 8							
reaction time	0.206	5.58	5.74	5.94	6.24	6.40	6.97	7.58		# of strides	12.40	11.68	12.64	14.55	24.08	27.19	3.11
velocity	7.33	8.96	8.71	8.42	8.01	7.81	7.17	6.60	7.80	207.0	8.06	8.56	7.91	6.87	8.31	7.36	

## 2024 FBK Games (Hengelo, NED)

## National FINAL

date 07-Jul-24

Omega Timing (2024) - continental tour gold race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>van Leur, Madelif (NED) (20)</b> time	6.96	12.67	18.59	24.71	31.10	37.84	45.13	53.04	53.04	6 / 1							
reaction time	0.195	5.71	5.92	6.12	6.39	6.74	7.29	7.91	<b>NU18R PB</b>	# of strides	12.67	12.04	13.13	15.20	24.71	28.33	3.62
velocity	7.18	8.76	8.45	8.17	7.82	7.42	6.86	6.32	7.54		7.89	8.31	7.62	6.58	8.09	7.06	
<b>Bouma, Andrea (NED) (1999)</b> time	7.01	12.73	18.60	24.73	31.16	37.97	45.23	53.34	53.34	7 / 2							
reaction time	0.191	5.72	5.87	6.13	6.43	6.81	7.26	8.11		# of strides	12.73	12.00	13.24	15.37	24.73	28.61	3.88
velocity	7.13	8.74	8.52	8.16	7.78	7.34	6.89	6.17	7.50		7.86	8.33	7.55	6.51	8.09	6.99	
<b>Müller, Laura (GER) (1995)</b> time	6.96	12.71	18.61	24.72	31.11	37.98	45.51	53.73	53.73	2 / 3							
reaction time	0.170	5.75	5.90	6.11	6.39	6.87	7.53	8.22		# of strides	12.71	12.01	13.26	15.75	24.72	29.01	4.29
velocity	7.18	8.70	8.47	8.18	7.82	7.28	6.64	6.08	7.44		7.87	8.33	7.54	6.35	8.09	6.89	
<b>Franke, Nina (NED) (2002)</b> time	6.97	12.68	18.51	24.64	31.15	38.15	45.69	54.11	54.11	4 / 4							
reaction time	0.153	5.71	5.83	6.13	6.51	7.00	7.54	8.42		# of strides	12.68	11.96	13.51	15.96	24.64	29.47	4.83
velocity	7.17	8.76	8.58	8.16	7.68	7.14	6.63	5.94	7.39		7.89	8.36	7.40	6.27	8.12	6.79	
<b>Veninga, Dominique (NED) (1)</b> time	7.00	12.65	18.55	24.71	31.23	38.19	45.71	54.12	54.12	1 / 5							
reaction time	0.209	5.65	5.90	6.16	6.52	6.96	7.52	8.41		# of strides	12.65	12.06	13.48	15.93	24.71	29.41	4.70
velocity	7.14	8.85	8.47	8.12	7.67	7.18	6.65	5.95	7.39		7.91	8.29	7.42	6.28	8.09	6.80	
<b>Ellsworth, Maureen (NED) (1)</b> time	7.17	13.11	19.13	25.43	32.05	39.09	46.39	54.30	54.30	8 / 6							
reaction time	0.158	5.94	6.02	6.30	6.62	7.04	7.30	7.91		# of strides	13.11	12.32	13.66	15.21	25.43	28.87	3.44
velocity	6.97	8.42	8.31	7.94	7.55	7.10	6.85	6.32	7.37		7.63	8.12	7.32	6.57	7.86	6.93	
<b>de Blaauw, Britt (NED) (200)</b> time	6.90	12.60	18.50	24.56	31.10	38.20	46.08	55.06	55.06	3 / 7							
reaction time	0.177	5.70	5.90	6.06	6.54	7.10	7.88	8.98		# of strides	12.60	11.96	13.64	16.86	24.56	30.50	5.94
velocity	7.25	8.77	8.47	8.25	7.65	7.04	6.35	5.57	7.26		7.94	8.36	7.33	5.93	8.14	6.56	

## 2024 USA Olympic Trials (Eugene, OR)

## FINAL

date 23-Jun-24

USATF and Karmarush (2024) - USA Olympic trials results and race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Ellis, Kendall (USA) (1996)</b> time		12.11		23.96		36.35		49.46	49.46	8 / 1							
reaction time				11.85		12.39		13.11	<b>PB</b>	# of strides	12.11	11.85	12.39	13.11	23.96	25.50	1.54
velocity		8.26		8.44		8.07		7.63	8.09		8.26	8.44	8.07	7.63	8.35	7.84	
<b>Butler, Aaliyah (USA) (2003)</b> time		12.01		23.70		36.15		49.71	49.71	5 / 2							
reaction time				11.69		12.45		13.56	<b>PB</b>	# of strides	12.01	11.69	12.45	13.56	23.70	26.01	2.31
velocity		8.33		8.55		8.03		7.37	8.05		8.33	8.55	8.03	7.37	8.44	7.69	
<b>Holmes, Alexis (USA) (2000)</b> time		12.09		23.90		36.49		49.78	49.78	3 / 4							
reaction time				11.81		12.59		13.29	<b>PB</b>	# of strides	12.09	11.81	12.59	13.29	23.90	25.88	1.98
velocity		8.27		8.47		7.94		7.52	8.04		8.27	8.47	7.94	7.52	8.37	7.73	
<b>Brown, Kaylyn (USA) (2004)</b> time		11.90		23.54		36.29		50.07	50.07	7 / 4							
reaction time				11.64		12.75		13.78		# of strides	11.90	11.64	12.75	13.78	23.54	26.53	2.99
velocity		8.40		8.59		7.84		7.26	7.99		8.40	8.59	7.84	7.26	8.50	7.54	

<b>Hayes, Quanera (USA) (1992)</b>	time	12.45	24.57	37.19	50.55	50.55	1 / 5										
	reaction time		12.12	12.62	13.36		# of strides	12.45	12.12	12.62	13.36	24.57	25.98	1.41			
	interval							8.03	8.25	7.92	7.49	8.14	7.70				
	velocity	8.03	8.25	7.92	7.49	7.91											
<b>Whittaker, Isabella (USA) (20</b>	time	12.32	24.31	37.10	50.68	50.68	9 / 6										
	reaction time		11.99	12.79	13.58		# of strides	12.32	11.99	12.79	13.58	24.31	26.37	2.06			
	interval							8.12	8.34	7.82	7.36	8.23	7.58				
	velocity	8.12	8.34	7.82	7.36	7.89											
<b>Irby-Jackson, Lynna (USA) (</b>	time	11.84	23.88	36.48	50.74	50.74	6 / 7										
	reaction time		12.04	12.60	14.26		# of strides	11.84	12.04	12.60	14.26	23.88	26.86	2.98			
	interval							183.0	8.45	8.31	7.94	7.01	8.38	7.45			
	velocity	8.45	8.31	7.94	7.01	7.88											
<b>Ford, JaMeesia (USA) (2005)</b>	time	12.20	24.03	36.89	50.80	50.80	2 / 8										
	reaction time		11.83	12.86	13.91		# of strides	12.20	11.83	12.86	13.91	24.03	26.77	2.74			
	interval							8.20	8.45	7.78	7.19	8.32	7.47				
	velocity	8.20	8.45	7.78	7.19	7.87											
<b>Little, Shamier (USA) (1995)</b>	time	12.02	23.69	36.28	50.96	50.96	4 / 9										
	reaction time		11.67	12.59	14.68		# of strides	12.02	11.67	12.59	14.68	23.69	27.27	3.58			
	interval							8.32	8.57	7.94	6.81	8.44	7.33				
	velocity	8.32	8.57	7.94	6.81	7.85											

## Semi-Final 3

date 22-Jun-24

USATF and Karmarush (2024) - USA Olympic trials results and race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Irby-Jackson, Lynna (USA) (</b>	time	11.98	23.66	36.23	50.17	50.17	7 / 1											
	reaction time		11.68	12.57	13.94		# of strides	11.98	11.68	12.57	13.94	23.66	26.51	2.85				
	interval							181.2	8.35	8.56	7.96	7.17	8.45	7.54				
	velocity	8.35	8.56	7.96	7.17	7.97												
<b>Whittaker, Isabella (USA) (20</b>	time	12.35	23.96	36.73	50.48	50.48	5 / 2											
	reaction time		11.61	12.77	13.75		# of strides	12.35	11.61	12.77	13.75	23.96	26.52	2.56				
	interval							187.0	8.10	8.61	7.83	7.27	8.35	7.54				
	velocity	8.10	8.61	7.83	7.27	7.92												
<b>Joseph, Rachel (USA) (2004)</b>	time	12.37	23.99	36.64	50.74	50.74	8 / 3											
	reaction time		11.62	12.65	14.10		# of strides	12.37	11.62	12.65	14.10	23.99	26.75	2.76				
	interval							8.08	8.61	7.91	7.09	8.34	7.48					
	velocity	8.08	8.61	7.91	7.09	7.88												
<b>Diggs, Talitha (USA) (2002)</b>	time	12.10	23.66	36.63	50.78	50.78	9 / 4											
	reaction time		11.56	12.97	14.15		# of strides	12.10	11.56	12.97	14.15	23.66	27.12	3.46				
	interval							8.26	8.65	7.71	7.07	8.45	7.37					
	velocity	8.26	8.65	7.71	7.07	7.88												
<b>Effiong, Rosey (USA) (2001)</b>	time	12.22	23.81	36.50	50.92	50.92	6 / 5											
	reaction time		11.59	12.69	14.42		# of strides	12.22	11.59	12.69	14.42	23.81	27.11	3.30				
	interval							193.0	8.18	8.63	7.88	6.93	8.40	7.38				
	velocity	8.18	8.63	7.88	6.93	7.86												
<b>Robinson, Na'Asha (USA) (1</b>	time	12.14	23.52	36.56	51.65	51.65	4 / 6											
	reaction time		11.38	13.04	15.09		# of strides	12.14	11.38	13.04	15.09	23.52	28.13	4.61				
	interval							197.0	8.24	8.79	7.67	6.63	8.50	7.11				
	velocity	8.24	8.79	7.67	6.63	7.74												
<b>Whitney, Kaylin (USA) (1998)</b>	time	12.45	24.02	37.05	51.79	51.79	1 / 7											
	reaction time		11.57	13.03	14.74		# of strides	12.45	11.57	13.03	14.74	24.02	27.77	3.75				
	interval							8.03	8.64	7.67	6.78	8.33	7.20					
	velocity	8.03	8.64	7.67	6.78	7.72												
<b>Okolo, Courtney (USA) (199</b>	time	12.48	24.22	37.33	52.11	52.11	2 / 8											
	reaction time		11.74	13.11	14.78		# of strides	12.48	11.74	13.11	14.78	24.22	27.89	3.67				
	interval							8.01	8.52	7.63	6.77	8.26	7.17					
	velocity	8.01	8.52	7.63	6.77	7.68												
<b>Holman, Ziyah (USA) (2002)</b>	time	12.45	24.43	37.63	53.00	53.00	3 / 9											
	reaction time		11.98	13.20	15.37		# of strides	12.45	11.98	13.20	15.37	24.43	28.57	4.14				
	interval							8.03	8.35	7.58	6.51	8.19	7.00					
	velocity	8.03	8.35	7.58	6.51	7.55												

## Semi-Final 2

date 22-Jun-24

USATF and Karmarush (2024) - USA Olympic trials results and race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Ellis, Kendall (USA) (1996)</b>	time	12.27	23.64	35.93	49.81	49.81	4 / 1											
	reaction time		11.37	12.29	13.88		# of strides	12.27	11.37	12.29	13.88	23.64	26.17	2.53				
	interval							184.0	8.15	8.80	8.14	7.20	8.46	7.64				
	velocity	8.15	8.80	8.14	7.20	8.03												
<b>Little, Shamier (USA) (1995)</b>	time	12.48	24.01	36.62	50.16	50.16	8 / 2											
	reaction time		11.53	12.61	13.54		# of strides	12.48	11.53	12.61	13.54	24.01	26.15	2.14				
	interval							8.01	8.67	7.93	7.39	8.33	7.65					
	velocity	8.01	8.67	7.93	7.39	7.97												
<b>Hayes, Quanera (USA) (1992)</b>	time	12.44	23.86	36.37	50.46	50.46	5 / 3											
	reaction time		11.42	12.51	14.09		# of strides	12.44	11.42	12.51	14.09	23.86	26.60	2.74				
	interval							184.0	8.04	8.76	7.99	7.10	8.38	7.52				
	velocity	8.04	8.76	7.99	7.10	7.93												
<b>Harris, Kimberly (USA) (2002)</b>	time	12.40	24.02	36.82	51.26	51.26	6 / 4											
	reaction time		11.62	12.80	14.44		# of strides	12.40	11.62	12.80	14.44	24.02	27.24	3.22				
	interval							197.0	8.06	8.61	7.81	6.93	8.33	7.34				
	velocity	8.06	8.61	7.81	6.93	7.80												
<b>Whyte, Madison (USA) (200</b>	time	12.39	24.01	36.93	51.49	51.49	3 / 5											
	reaction time		11.62	12.92	14.56		# of strides	12.39	11.62	12.92	14.56	24.01	27.48	3.47				
	interval							183.0	8.07	8.61	7.74	6.87	8.33	7.28				
	velocity	8.07	8.61	7.74	6.87	7.77												
<b>Lewis, Lauren (USA) (2005)</b>	time	12.51	24.29	37.34	51.55	51.55	9 / 6											
	reaction time		11.78	13.05	14.21		# of strides	12.51	11.78	13.05	14.21	24.29	27.26	2.97				
	interval							7.99	8.49	7.66	7.04	8.23	7.34					



<b>McDowell, Jessica (USA) (20</b>	time	12.24	23.84	36.93	51.75	51.75	2 / 8										
reaction time	interval		11.60	13.09	14.82		# of strides	12.24	11.60	13.09	14.82	23.84	27.91	4.07			
	velocity	8.17	8.62	7.64	6.75	7.73		8.17	8.62	7.64	6.75	8.39	7.17				
<b>Pipion, Ceonna (USA) (2002)</b>	time	12.89	25.14	38.37	52.76	52.76	1 / 9										
reaction time	interval		12.25	13.23	14.39		# of strides	12.89	12.25	13.23	14.39	25.14	27.62	2.48			
	velocity	7.76	8.16	7.56	6.95	7.58		7.76	8.16	7.56	6.95	7.96	7.24				

**Semi-Final 1** date 22-Jun-24

USATF and Karmarush (2024) - USA Olympic trials results and race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Brown, Kaylyn (USA) (2004)</b>	time	11.98	23.53	36.17	49.71	49.71	8 / 1											
reaction time	interval		11.55	12.64	13.54		# of strides	11.98	11.55	12.64	13.54	23.53	26.18	2.65				
	velocity	8.35	8.66	7.91	7.39	8.05		8.35	8.66	7.91	7.39	8.50	7.64					
<b>Butler, Aaliyah (USA) (2003)</b>	time	12.34	23.74	36.16	50.01	50.01	5 / 2											
reaction time	interval		11.40	12.42	13.85		# of strides	12.34	11.40	12.42	13.85	23.74	26.27	2.53				
	velocity	8.10	8.77	8.05	7.22	8.00		8.10	8.77	8.05	7.22	8.42	7.61					
<b>Holmes, Alexis (USA) (2000)</b>	time	12.15	23.59	36.35	50.19	50.19	6 / 4											
reaction time	interval		11.44	12.76	13.84	<b>PB</b>	# of strides	12.15	11.44	12.76	13.84	23.59	26.60	3.01				
	velocity	8.23	8.74	7.84	7.23	7.97		183.0	8.23	8.74	7.84	7.23	8.48	7.52				
<b>Ford, JaMeesia (USA) (2005)</b>	time	12.02	23.50	36.18	50.33	50.33	4 / 4											
reaction time	interval		11.48	12.68	14.15	<b>PB</b>	# of strides	12.02	11.48	12.68	14.15	23.50	26.83	3.33				
	velocity	8.32	8.71	7.89	7.07	7.95		184.0	8.32	8.71	7.89	7.07	8.51	7.45				
<b>Lear, Bailey (USA) (2001)</b>	time	12.33	24.12	36.74	50.94	50.94	7 / 5											
reaction time	interval		11.79	12.62	14.20	<b>PB</b>	# of strides	12.33	11.79	12.62	14.20	24.12	26.82	2.70				
	velocity	8.11	8.48	7.92	7.04	7.85		8.11	8.48	7.92	7.04	8.29	7.46					
<b>Martin, Jania (USA) (2000)</b>	time	12.42	24.65	37.83	52.34	52.34	1 / 6											
reaction time	interval		12.23	13.18	14.51		# of strides	12.42	12.23	13.18	14.51	24.65	27.69	3.04				
	velocity	8.05	8.18	7.59	6.89	7.64		8.05	8.18	7.59	6.89	8.11	7.22					
<b>Jones, Jan'Tajjah (USA) (200)</b>	time	12.74	24.89	37.92	52.41	52.41	9 / <del>7</del>											
reaction time	interval		12.15	13.03	14.49	<b>DQ</b>	# of strides	12.74	12.15	13.03	14.49	24.89	27.52	2.63				
	velocity	7.85	8.23	7.67	6.90	7.63		7.85	8.23	7.67	6.90	8.04	7.27					
<b>Williams, Kiah (USA) (2002)</b>	time	12.11	24.00	37.03	52.54	52.54	3 / <del>8</del> 7											
reaction time	interval		11.89	13.03	15.51		# of strides	12.11	11.89	13.03	15.51	24.00	28.54	4.54				
	velocity	8.26	8.41	7.67	6.45	7.61		8.26	8.41	7.67	6.45	8.33	7.01					
<b>Peoples, Paris (USA) (2000)</b>	time	12.47	24.17	37.28	52.68	52.68	2 / <del>9</del> 8											
reaction time	interval		11.70	13.11	15.40		# of strides	12.47	11.70	13.11	15.40	24.17	28.51	4.34				
	velocity	8.02	8.55	7.63	6.49	7.59		8.02	8.55	7.63	6.49	8.27	7.02					

**Heat 5** date 21-Jun-24

USATF and Karmarush (2024) - USA Olympic trials results and race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Joseph, Rachel (USA) (2004)</b>	time	12.44	24.28	37.09	50.92	50.92	4 / 1											
reaction time	interval		11.84	12.81	13.83	<b>PB</b>	# of strides	12.44	11.84	12.81	13.83	24.28	26.64	2.36				
	velocity	8.04	8.45	7.81	7.23	7.86		182.5	8.04	8.45	7.81	7.23	8.24	7.51				
<b>Hayes, Quanera (USA) (1992)</b>	time	12.35	24.18	37.26	50.94	50.94	7 / 2											
reaction time	interval		11.83	13.08	13.68		# of strides	12.35	11.83	13.08	13.68	24.18	26.76	2.58				
	velocity	8.10	8.45	7.65	7.31	7.85		183.0	8.10	8.45	7.65	7.31	8.27	7.47				
<b>Brown, Kaylyn (USA) (2004)</b>	time	11.96	23.48	36.74	51.09	51.09	3 / 3											
reaction time	interval		11.52	13.26	14.35		# of strides	11.96	11.52	13.26	14.35	23.48	27.61	4.13				
	velocity	8.36	8.68	7.54	6.97	7.83		185.0	8.36	8.68	7.54	6.97	8.52	7.24				
<b>Jones, Jan'Tajjah (USA) (200)</b>	time	12.73	24.57	37.37	51.59	51.59	5 / 4											
reaction time	interval		11.84	12.80	14.22		# of strides	12.73	11.84	12.80	14.22	24.57	27.02	2.45				
	velocity	7.86	8.45	7.81	7.03	7.75		196.0	7.86	8.45	7.81	7.03	8.14	7.40				
<b>Williams, Kiah (USA) (2002)</b>	time	12.37	24.59	37.64	52.04	52.04	6 / 5											
reaction time	interval		12.22	13.05	14.40		# of strides	12.37	12.22	13.05	14.40	24.59	27.45	2.86				
	velocity	8.08	8.18	7.66	6.94	7.69		186.7	8.08	8.18	7.66	6.94	8.13	7.29				
<b>Griffin, Jada (USA) (1999)</b>	time	12.74	24.83	38.43	53.29	53.29	8 / 6											
reaction time	interval		12.09	13.60	14.86		# of strides	12.74	12.09	13.60	14.86	24.83	28.46	3.63				
	velocity	7.85	8.27	7.35	6.73	7.51		7.85	8.27	7.35	6.73	8.05	7.03					

**Heat 4** date 21-Jun-24

USATF and Karmarush (2024) - USA Olympic trials results and race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Holmes, Alexis (USA) (2000)</b>	time	12.22	24.06	37.23	51.05	51.05	3 / 1											
reaction time	interval		11.84	13.17	13.82		# of strides	12.22	11.84	13.17	13.82	24.06	26.99	2.93				
	velocity	8.18	8.45	7.59	7.24	7.84		183.7	8.18	8.45	7.59	7.24	8.31	7.41				
<b>Effiong, Rosey (USA) (2001)</b>	time	12.34	24.14	37.03	51.21	51.21	8 / 2											
reaction time	interval		11.80	12.89	14.18		# of strides	12.34	11.80	12.89	14.18	24.14	27.07	2.93				
	velocity	8.10	8.47	7.76	7.05	7.81		192.5	8.10	8.47	7.76	7.05	8.29	7.39				
<b>Ford, JaMeesia (USA) (2005)</b>	time	12.54	24.53	37.83	51.55	51.55	4 / 3											
reaction time	interval		11.99	13.30	13.72		# of strides	12.54	11.99	13.30	13.72	24.53	27.02	2.49				
	velocity	7.97	8.34	7.52	7.29	7.76		183.0	7.97	8.34	7.52	7.29	8.15	7.40				
<b>Lewis, Lauren (USA) (2005)</b>	time	12.60	24.56	37.73	51.73	51.73	6 / 4											
reaction time	interval		11.96	13.17	14.00		# of strides	12.60	11.96	13.17	14.00	24.56	27.17	2.61				

velocity	7.94	8.36	7.59	7.14	7.73	197.0	7.94	8.36	7.59	7.14	8.14	7.36	
<b>Okolo, Courtney (USA) (1999)</b> time	12.78	24.96	38.01	51.79	51.79	9 / 5							
reaction time interval		12.18	13.05	13.78		# of strides	12.78	12.18	13.05	13.78	24.96	26.83	1.87
velocity	7.82	8.21	7.66	7.26	7.72	197.0	7.82	8.21	7.66	7.26	8.01	7.45	
<b>Whitney, Kaylin (USA) (1998)</b> time	12.63	24.33	37.43	52.18	52.18	7 / 6							
reaction time interval		11.70	13.10	14.75		# of strides	12.63	11.70	13.10	14.75	24.33	27.85	3.52
velocity	7.92	8.55	7.63	6.78	7.67	184.0	7.92	8.55	7.63	6.78	8.22	7.18	
<b>Perry, Corrsia (USA) (1996)</b> time	12.52	24.52	38.16	53.37	53.37	5 / 7							
reaction time interval		12.00	13.64	15.21		# of strides	12.52	12.00	13.64	15.21	24.52	28.85	4.33
velocity	7.99	8.33	7.33	6.57	7.49	198.2	7.99	8.33	7.33	6.57	8.16	6.93	

## Heat 3

date 21-Jun-24

USATF and Karmarush (2024) - USA Olympic trials results and race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Little, Shamier (USA) (1995)</b> time	12.34	24.15	36.71	50.13	50.13	7 / 1											
reaction time interval		11.81	12.56	13.42		# of strides	12.34	11.81	12.56	13.42	24.15	25.98	1.83				
velocity	8.10	8.47	7.96	7.45	7.98	185.0	8.10	8.47	7.96	7.45	8.28	7.70					
<b>Harris, Kimberly (USA) (2002)</b> time	12.50	24.23	36.99	51.07	51.07	6 / 2											
reaction time interval		11.73	12.76	14.08	<b>PB</b>	# of strides	12.50	11.73	12.76	14.08	24.23	26.84	2.61				
velocity	8.00	8.53	7.84	7.10	7.83	195.0	8.00	8.53	7.84	7.10	8.25	7.45					
<b>Arnold, Jermaisha (USA) (2019)</b> time	12.83	24.56	37.21	51.20	51.20	8 / 3											
reaction time interval		11.73	12.65	13.99		# of strides	12.83	11.73	12.65	13.99	24.56	26.64	2.08				
velocity	7.79	8.53	7.91	7.15	7.81	192.0	7.79	8.53	7.91	7.15	8.14	7.51					
<b>Peoples, Paris (USA) (2000)</b> time	12.48	24.18	37.18	52.20	52.20	4 / 4											
reaction time interval		11.70	13.00	15.02		# of strides	12.48	11.70	13.00	15.02	24.18	28.02	3.84				
velocity	8.01	8.55	7.69	6.66	7.66	194.5	8.01	8.55	7.69	6.66	8.27	7.14					
<b>Pipion, Ceonna (USA) (2002)</b> time	12.79	25.09	38.11	52.28	52.28	5 / 5											
reaction time interval		12.30	13.02	14.17		# of strides	12.79	12.30	13.02	14.17	25.09	27.19	2.10				
velocity	7.82	8.13	7.68	7.06	7.65	198.8	7.82	8.13	7.68	7.06	7.97	7.36					
<b>Singletary, Maya (USA) (1999)</b> time	12.35	24.26	37.49	52.97	52.97	9 / 6											
reaction time interval		11.91	13.23	15.48		# of strides	12.35	11.91	13.23	15.48	24.26	28.71	4.45				
velocity	8.10	8.40	7.56	6.46	7.55		8.10	8.40	7.56	6.46	8.24	6.97					

## Heat 2

date 21-Jun-24

USATF and Karmarush (2024) - USA Olympic trials results and race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Butler, Aaliyah (USA) (2003)</b> time	12.05	23.59	36.48	50.44	50.44	3 / 1											
reaction time interval		11.54	12.89	13.96		# of strides	12.05	11.54	12.89	13.96	23.59	26.85	3.26				
velocity	8.30	8.67	7.76	7.16	7.93	191.0	8.30	8.67	7.76	7.16	8.48	7.45					
<b>Whittaker, Isabella (USA) (2019)</b> time	12.32	24.18	37.17	51.18	51.18	9 / 2											
reaction time interval		11.86	12.99	14.01		# of strides	12.32	11.86	12.99	14.01	24.18	27.00	2.82				
velocity	8.12	8.43	7.70	7.14	7.82	198.0	8.12	8.43	7.70	7.14	8.27	7.41					
<b>Ellis, Kendall (USA) (1996)</b> time	12.37	24.08	37.20	51.22	51.22	5 / 3											
reaction time interval		11.71	13.12	14.02		# of strides	12.37	11.71	13.12	14.02	24.08	27.14	3.06				
velocity	8.08	8.54	7.62	7.13	7.81	188.0	8.08	8.54	7.62	7.13	8.31	7.37					
<b>Robinson, Na'Asha (USA) (1999)</b> time	12.31	23.92	36.95	51.30	51.30	8 / 4											
reaction time interval		11.61	13.03	14.35	<b>=PB</b>	# of strides	12.31	11.61	13.03	14.35	23.92	27.38	3.46				
velocity	8.12	8.61	7.67	6.97	7.80	194.0	8.12	8.61	7.67	6.97	8.36	7.30					
<b>McDowell, Jessica (USA) (2019)</b> time	12.10	23.90	37.20	52.12	52.12	4 / 5											
reaction time interval		11.80	13.30	14.92		# of strides	12.10	11.80	13.30	14.92	23.90	28.22	4.32				
velocity	8.26	8.47	7.52	6.70	7.67	196.0	8.26	8.47	7.52	6.70	8.37	7.09					
<b>Murphy, Bryannia (USA) (2019)</b> time	12.46	24.44	37.87	53.03	53.03	6 / 6											
reaction time interval		11.98	13.43	15.16		# of strides	12.46	11.98	13.43	15.16	24.44	28.59	4.15				
velocity	8.03	8.35	7.45	6.60	7.54	200.0	8.03	8.35	7.45	6.60	8.18	7.00					
<b>Manson, Taylor (USA) (1999)</b> time	12.37	24.18	37.81	53.49	53.49	7 / 7											
reaction time interval		11.81	13.63	15.68		# of strides	12.37	11.81	13.63	15.68	24.18	29.31	5.13				
velocity	8.08	8.47	7.34	6.38	7.48	196.0	8.08	8.47	7.34	6.38	8.27	6.82					

## Heat 1

date 21-Jun-24

USATF and Karmarush (2024) - USA Olympic trials results and race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Irby-Jackson, Lynna (USA) (2019)</b> time	11.96	23.74	36.38	50.89	50.89	3 / 1											
reaction time interval		11.78	12.64	14.51		# of strides	11.96	11.78	12.64	14.51	23.74	27.15	3.41				
velocity	8.36	8.49	7.91	6.89	7.86	182.0	8.36	8.49	7.91	6.89	8.42	7.37					
<b>Lear, Bailey (USA) (2001)</b> time	12.42	24.26	37.14	51.12	51.12	5 / 2											
reaction time interval		11.84	12.88	13.98		# of strides	12.42	11.84	12.88	13.98	24.26	26.86	2.60				
velocity	8.05	8.45	7.76	7.15	7.82	191.2	8.05	8.45	7.76	7.15	8.24	7.45					
<b>Diggs, Talitha (USA) (2002)</b> time	12.36	24.33	37.29	51.57	51.57	4 / 3											
reaction time interval		11.97	12.96	14.28		# of strides	12.36	11.97	12.96	14.28	24.33	27.24	2.91				
velocity	8.09	8.35	7.72	7.00	7.76	196.0	8.09	8.35	7.72	7.00	8.22	7.34					
<b>Whyte, Madison (USA) (2004)</b> time	12.35	24.51	37.39	51.85	51.85	6 / 4											
reaction time interval		12.16	12.88	14.46		# of strides	12.35	12.16	12.88	14.46	24.51	27.34	2.83				
velocity	8.10	8.22	7.76	6.92	7.71	182.0	8.10	8.22	7.76	6.92	8.16	7.32					

<b>Holman, Ziyah (USA) (2002)</b>	time	12.56	24.59	37.66	51.96	51.96	7 / 5										
	reaction time		12.03	13.07	14.30		# of strides	12.56	12.03	13.07	14.30	24.59	27.37	2.78			
	velocity	7.96	8.31	7.65	6.99	7.70	196.0	7.96	8.31	7.65	6.99	8.13	7.31				
<b>Martin, Jania (USA) (2000)</b>	time	12.52	24.61	37.71	52.12	52.12	9 / 6										
	reaction time		12.09	13.10	14.41		# of strides	12.52	12.09	13.10	14.41	24.61	27.51	2.90			
	velocity	7.99	8.27	7.63	6.94	7.67		7.99	8.27	7.63	6.94	8.13	7.27				
<b>Wright, Jessica (USA) (2000)</b>	time	12.76	24.90	38.01	52.76	52.76	8 / 7										
	reaction time		12.14	13.11	14.75		# of strides	12.76	12.14	13.11	14.75	24.90	27.86	2.96			
	velocity	7.84	8.24	7.63	6.78	7.58		7.84	8.24	7.63	6.78	8.03	7.18				

## 2024 European Athletics Championships (Roma, ITA)

## FINAL

date 10-Jun-24

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		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Kaczmarek, Natalia (POL) (1<sup>st</sup>)</b>	time		12.22		23.59		35.84		48.98	48.98	7 / 1							
	reaction time	0.188			11.37		12.25		13.14	<b>NR PB</b>	# of strides	12.22	11.37	12.25	13.14	23.59	25.39	1.80
	interval																	
	velocity		8.18		8.80		8.16		7.61	8.17	192.0	8.18	8.80	8.16	7.61	8.48	7.88	
<b>Adeleke, Rhasidat (IRL) (200)</b>	time		12.29		23.69		35.82		49.07	49.07	6 / 2							
	reaction time	0.104			11.40		12.13		13.25	<b>NR PB</b>	# of strides	12.29	11.40	12.13	13.25	23.69	25.38	1.69
	interval																	
	velocity		8.14		8.77		8.24		7.55	8.15		8.14	8.77	8.24	7.55	8.44	7.88	
<b>Klaver, Lieke (NED) (1998)</b>	time		12.45		23.92		36.34		50.08	50.08	8 / 3							
	reaction time	0.185			11.47		12.42		13.74		# of strides	12.45	11.47	12.42	13.74	23.92	26.16	2.24
	interval																	
	velocity		8.03		8.72		8.05		7.28	7.99	184.0	8.03	8.72	8.05	7.28	8.36	7.65	
<b>Manuel, Lurdes Gloria (CZE)</b>	time		12.53		24.07		36.79		50.52	50.52	3 / 4							
	reaction time	0.368			11.54		12.72		13.73	<b>NJR PB</b>	# of strides	12.53	11.54	12.72	13.73	24.07	26.45	2.38
	interval																	
	velocity		7.98		8.67		7.86		7.28	7.92		7.98	8.67	7.86	7.28	8.31	7.56	
<b>Miklós, Andrea (ROU) (1999)</b>	time		12.30		23.84		36.41		50.71	50.71	9 / 5							
	reaction time	0.285			11.54		12.57		14.30		# of strides	12.30	11.54	12.57	14.30	23.84	26.87	3.03
	interval																	
	velocity		8.13		8.67		7.96		6.99	7.89		8.13	8.67	7.96	6.99	8.39	7.44	
<b>Nielsen, Laviai (GBR) (1996)</b>	time		12.44		24.29		36.86		50.71	50.71	5 / 6							
	reaction time	0.171			11.85		12.57		13.85	<b>PB</b>	# of strides	12.44	11.85	12.57	13.85	24.29	26.42	2.13
	interval																	
	velocity		8.04		8.44		7.96		7.22	7.89		8.04	8.44	7.96	7.22	8.23	7.57	
<b>Gogl-Walli, Susanne (AUT) (time)</b>	time		12.50		24.39		37.21		51.23	51.23	2 / 7							
	reaction time	0.225			11.89		12.82		14.02		# of strides	12.50	11.89	12.82	14.02	24.39	26.84	2.45
	interval																	
	velocity		8.00		8.41		7.80		7.13	7.81		8.00	8.41	7.80	7.13	8.20	7.45	
<b>Mawdsley, Sharlene (IRL) (1<sup>st</sup>)</b>	time		12.33		24.09		36.82		51.59	51.59	4 / 8							
	reaction time	0.201			11.76		12.73		14.77		# of strides	12.33	11.76	12.73	14.77	24.09	27.50	3.41
	interval																	
	velocity		8.11		8.50		7.86		6.77	7.75		8.11	8.50	7.86	6.77	8.30	7.27	

## Semi-Final 3

date 09-Jun-24

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		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Klaver, Lieke (NED) (1998)</b>	time		12.24		24.05		37.00		50.57	50.57	7 / 1							
	reaction time	0.189			11.81		12.95		13.57		# of strides	12.24	11.81	12.95	13.57	24.05	26.52	2.47
	interval																	
	velocity		8.17		8.47		7.72		7.37	7.91		8.17	8.47	7.72	7.37	8.32	7.54	
<b>Mawdsley, Sharlene (IRL) (1<sup>st</sup>)</b>	time		12.43		24.38		37.17		50.99	50.99	8 / 2							
	reaction time	0.200			11.95		12.79		13.82		# of strides	12.43	11.95	12.79	13.82	24.38	26.61	2.23
	interval																	
	velocity		8.05		8.37		7.82		7.24	7.84		8.05	8.37	7.82	7.24	8.20	7.52	
<b>Mangione, Alice (ITA) (1997)</b>	time		12.79		25.23		38.06		51.34	51.34	9 / 3							
	reaction time	0.248			12.44		12.83		13.28	<b>PB</b>	# of strides	12.79	12.44	12.83	13.28	25.23	26.11	0.88
	interval																	
	velocity		7.82		8.04		7.79		7.53	7.79		7.82	8.04	7.79	7.53	7.93	7.66	
<b>Ponette, Helena (BEL) (2000)</b>	time		12.57		24.36		37.27		51.65	51.65	5 / 4							
	reaction time	0.243			11.79		12.91		14.38		# of strides	12.57	11.79	12.91	14.38	24.36	27.29	2.93
	interval																	
	velocity		7.96		8.48		7.75		6.95	7.74		7.96	8.48	7.75	6.95	8.21	7.33	
<b>Shostak, Maryana (UKR) (20)</b>	time		12.70		24.79		37.83		51.99	51.99	2 / 5							
	reaction time	0.158			12.09		13.04		14.16	<b>PB</b>	# of strides	12.70	12.09	13.04	14.16	24.79	27.20	2.41
	interval																	
	velocity		7.87		8.27		7.67		7.06	7.69		7.87	8.27	7.67	7.06	8.07	7.35	
<b>Ohuruogu, Victoria (GBR) (1<sup>st</sup>)</b>	time		12.43		24.23		37.25		52.07	52.07	6 / 6							
	reaction time	0.224			11.80		13.02		14.82		# of strides	12.43	11.80	13.02	14.82	24.23	27.84	3.61
	interval																	
	velocity		8.05		8.47		7.68		6.75	7.68		8.05	8.47	7.68	6.75	8.25	7.18	
<b>Senn, Giulia (SUI) (2001)</b>	time		12.36		24.41		37.73		52.16	52.16	4 / 7							
	reaction time	0.183			12.05		13.32		14.43		# of strides	12.36	12.05	13.32	14.43	24.41	27.75	3.34
	interval																	
	velocity		8.09		8.30		7.51		6.93	7.67		8.09	8.30	7.51	6.93	8.19	7.21	
<b>Święty-Ersetic, Justyna (POL)</b>	time		12.67		24.65		37.75		52.18	52.18	3 / 8							
	reaction time	0.197			11.98		13.10		14.43		# of strides	12.67	11.98	13.10	14.43	24.65	27.53	2.88
	interval																	
	velocity		7.89		8.35		7.63		6.93	7.67		7.89	8.35	7.63	6.93	8.11	7.26	

## Semi-Final 2

date 09-Jun-24

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		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Kaczmarek, Natalia (POL) (1<sup>st</sup>)</b>	time		12.30		24.31		37.08		50.70	50.70	8 / 1							



reaction time	0.197	interval		12.02	12.85	13.91		# of strides	12.35	12.02	12.85	13.91	24.37	26.76	2.39
velocity	8.10			8.32	7.78	7.19	7.82	203.0	8.10	8.32	7.78	7.19	8.21	7.47	
<b>Gogl-Walli, Susanne (AUT) (time</b>	12.38	24.35	37.08	51.14	51.14			6 / 3							
reaction time	0.241	interval		11.97	12.73	14.06		# of strides	12.38	11.97	12.73	14.06	24.35	26.79	2.44
velocity	8.08			8.35	7.86	7.11	7.82	192.2	8.08	8.35	7.86	7.11	8.21	7.47	
<b>Becker, Sophie (IRL) (1997) time</b>	12.15	24.33	37.28	51.54	51.54			7 / 4							
reaction time	0.219	interval		12.18	12.95	14.26		# of strides	12.15	12.18	12.95	14.26	24.33	27.21	2.88
velocity	8.23			8.21	7.72	7.01	7.76	196.5	8.23	8.21	7.72	7.01	8.22	7.35	
<b>Petržilková, Tereza (CZE) (19 time</b>	12.76	25.00	37.99	52.05	52.05			9 / 5							
reaction time	0.206	interval		12.24	12.99	14.06		# of strides	12.76	12.24	12.99	14.06	25.00	27.05	2.05
velocity	7.84			8.17	7.70	7.11	7.68	195.0	7.84	8.17	7.70	7.11	8.00	7.39	
<b>Polinari, Anna (ITA) (1999) time</b>	12.91	25.44	38.45	52.53	52.53			4 / 6							
reaction time	0.174	interval		12.53	13.01	14.08		# of strides	12.91	12.53	13.01	14.08	25.44	27.09	1.65
velocity	7.75			7.98	7.69	7.10	7.61		7.75	7.98	7.69	7.10	7.86	7.38	
<b>Segura, Berta (ESP) (2003) time</b>	13.02	25.40	38.45	52.53	52.53			3 / 7							
reaction time	0.306	interval		12.38	13.05	14.08		# of strides	13.02	12.38	13.05	14.08	25.40	27.13	1.73
velocity	7.68			8.08	7.66	7.10	7.61		7.68	8.08	7.66	7.10	7.87	7.37	
<b>Lilja, Lisa (SWE) (1996) time</b>	12.81	25.40	38.39	52.55	52.55			2 / 8							
reaction time	0.195	interval		12.59	12.99	14.16		# of strides	12.81	12.59	12.99	14.16	25.40	27.15	1.75
velocity	7.81			7.94	7.70	7.06	7.61		7.81	7.94	7.70	7.06	7.87	7.37	

## Semi-Final 1 date 09-Jun-24

European Athletics (2024) - 2024 european athletics championships - results book

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Adeleke, Rhasidat (IRL) (200 time</b>	12.35	24.32		37.09		50.54		50.54		8 / 1							
reaction time	0.172	interval		11.97	12.77	13.45				# of strides	12.35	11.97	12.77	13.45	24.32	26.22	1.90
velocity	8.10			8.35	7.83	7.43		7.91		186.7	8.10	8.35	7.83	7.43	8.22	7.63	
<b>Nielsen, Lavi (GBR) (1996) time</b>	12.25	23.95	36.90	50.73	50.73			5 / 2									
reaction time	0.160	interval		11.70	12.95	13.83	PB	# of strides	12.25	11.70	12.95	13.83	23.95	26.78	2.83		
velocity	8.16			8.55	7.72	7.23	7.88		194.0	8.16	8.55	7.72	7.23	8.35	7.47		
<b>Manuel, Lurdes Gloria (CZE) time</b>	13.00	24.77	37.30	51.06	51.06			7 / 3									
reaction time	0.203	interval		11.77	12.53	13.76		# of strides	13.00	11.77	12.53	13.76	24.77	26.29	1.52		
velocity	7.69			8.50	7.98	7.27	7.83		188.5	7.69	8.50	7.98	7.27	8.07	7.61		
<b>Brossier, Amandine (FRA) ( time</b>	12.79	24.96	37.60	51.78	51.78			9 / 4									
reaction time	0.205	interval		12.17	12.64	14.18		# of strides	12.79	12.17	12.64	14.18	24.96	26.82	1.86		
velocity	7.82			8.22	7.91	7.05	7.72		205.0	7.82	8.22	7.91	7.05	8.01	7.46		
<b>Trevisan, Giancaria (ITA) (19 time</b>	12.63	25.12	38.34	52.59	52.59			2 / 5									
reaction time	0.188	interval		12.49	13.22	14.25		# of strides	12.63	12.49	13.22	14.25	25.12	27.47	2.35		
velocity	7.92			8.01	7.56	7.02	7.61		204.7	7.92	8.01	7.56	7.02	7.96	7.28		
<b>Ertzgaard, Astri (NOR) (2002 time</b>	12.68	24.85	38.17	52.82	52.82			3 / 6									
reaction time	0.174	interval		12.17	13.32	14.65		# of strides	12.68	12.17	13.32	14.65	24.85	27.97	3.12		
velocity	7.89			8.22	7.51	6.83	7.57		206.5	7.89	8.22	7.51	6.83	8.05	7.15		
<b>Morauskaitė, Modesta (LTU) time</b>	12.54	24.49	37.87	52.95	52.95			6 / 7									
reaction time	0.169	interval		11.95	13.38	15.08		# of strides	12.54	11.95	13.38	15.08	24.49	28.46	3.97		
velocity	7.97			8.37	7.47	6.63	7.55		201.5	7.97	8.37	7.47	6.63	8.17	7.03		
<b>Niederberger, Julia (SUI) (20 time</b>	12.46	24.47	37.82	52.97	52.97			4 / 8									
reaction time	0.180	interval		12.01	13.35	15.15		# of strides	12.46	12.01	13.35	15.15	24.47	28.50	4.03		
velocity	8.03			8.33	7.49	6.60	7.55		205.0	8.03	8.33	7.49	6.60	8.17	7.02		

## Heat 3 date 08-Jun-24

European Athletics (2024) - 2024 european athletics championships - results book

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Petržilková, Tereza (CZE) (19 time</b>	12.70	24.85	37.76	51.96	51.96			3 / 1									
reaction time	0.222	interval		12.15	12.91	14.20		# of strides	12.70	12.15	12.91	14.20	24.85	27.11	2.26		
velocity	7.87			8.23	7.75	7.04	7.70			7.87	8.23	7.75	7.04	8.05	7.38		
<b>Polinari, Anna (ITA) (1999) time</b>	12.98	25.14	37.90	52.06	52.06			8 / 2									
reaction time	0.199	interval		12.16	12.76	14.16		# of strides	12.98	12.16	12.76	14.16	25.14	26.92	1.78		
velocity	7.70			8.22	7.84	7.06	7.68			7.70	8.22	7.84	7.06	7.96	7.43		
<b>Ponette, Helena (BEL) (2000) time</b>	12.99	25.27	38.45	52.57	52.57			4 / 3									
reaction time	0.195	interval		12.28	13.18	14.12		# of strides	12.99	12.28	13.18	14.12	25.27	27.30	2.03		
velocity	7.70			8.14	7.59	7.08	7.61			7.70	8.14	7.59	7.08	7.91	7.33		
<b>Ertzgaard, Astri (NOR) (2002 time</b>	13.18	25.49	38.40	52.78	52.78			6 / 4									
reaction time	0.249	interval		12.31	12.91	14.38		# of strides	13.18	12.31	12.91	14.38	25.49	27.29	1.80		
velocity	7.59			8.12	7.75	6.95	7.58			7.59	8.12	7.75	6.95	7.85	7.33		
<b>Baas, Mette (FIN) (2000) time</b>	13.44	26.14	38.76	52.94	52.94			7 / 5									
reaction time	0.252	interval		12.70	12.62	14.18		# of strides	13.44	12.70	12.62	14.18	26.14	26.80	0.66		
velocity	7.44			7.87	7.92	7.05	7.56			7.44	7.87	7.92	7.05	7.65	7.46		
<b>Čirić, Maja (SRB) (1989) time</b>	12.59	24.85	38.18	52.96	52.96			5 / 6									
reaction time	0.239	interval		12.26	13.33	14.78		# of strides	12.59	12.26	13.33	14.78	24.85	28.11	3.26		
velocity	7.94			8.16	7.50	6.77	7.55			7.94	8.16	7.50	6.77	8.05	7.11		
<b>Melnyk, Tetyana (UKR) (199 time</b>	13.16	25.57	39.01	54.06	54.06			9 / 7									

reaction time	0.267	interval		12.41	13.44	15.05		# of strides	13.16	12.41	13.44	15.05	25.57	28.49	2.92
velocity			7.60	8.06	7.44	6.64	7.40		7.60	8.06	7.44	6.64	7.82	7.02	

## Heat 2

date 08-Jun-24

European Athletics (2024) - 2024 european athletics championships - results book

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Manuel, Lurdes Gloria (CZE)</b> time	13.30	25.46	38.02	51.36	51.36	51.36	51.36	51.36	51.36	8 / 1							
reaction time	0.212	12.16	12.56	13.34						# of strides	13.30	12.16	12.56	13.34	25.46	25.90	0.44
velocity		7.52	8.22	7.96	7.50	7.79					7.52	8.22	7.96	7.50	7.86	7.72	
<b>Mangione, Alice (ITA) (1997)</b> time	12.70	24.97	37.94	51.71	51.71	51.71	51.71	51.71	51.71	5 / 2							
reaction time	0.287	12.27	12.97	13.77						# of strides	12.70	12.27	12.97	13.77	24.97	26.74	1.77
velocity		7.87	8.15	7.71	7.26	7.74					7.87	8.15	7.71	7.26	8.01	7.48	
<b>Segura, Berta (ESP) (2003)</b> time	12.70	24.58	37.54	51.92	51.92	51.92	51.92	51.92	51.92	3 / 3							
reaction time	0.296	11.88	12.96	14.38	PB					# of strides	12.70	11.88	12.96	14.38	24.58	27.34	2.76
velocity		7.87	8.42	7.72	6.95	7.70					7.87	8.42	7.72	6.95	8.14	7.32	
<b>Świąty-Ersetic, Justyna (POL)</b> time	12.92	25.31	38.29	52.01	52.01	52.01	52.01	52.01	52.01	9 / 4							
reaction time	0.285	12.39	12.98	13.72						# of strides	12.92	12.39	12.98	13.72	25.31	26.70	1.39
velocity		7.74	8.07	7.70	7.29	7.69					7.74	8.07	7.70	7.29	7.90	7.49	
<b>Shostak, Maryana (UKR) (20</b> time	12.98	25.35	38.28	52.07	52.07	52.07	52.07	52.07	52.07	7 / 5							
reaction time	0.173	12.37	12.93	13.79	PB					# of strides	12.98	12.37	12.93	13.79	25.35	26.72	1.37
velocity		7.70	8.08	7.73	7.25	7.68					7.70	8.08	7.73	7.25	7.89	7.49	
<b>Lilja, Lisa (SWE) (1996)</b> time	12.91	25.13	37.96	52.18	52.18	52.18	52.18	52.18	52.18	6 / 6							
reaction time	0.193	12.22	12.83	14.22	PB					# of strides	12.91	12.22	12.83	14.22	25.13	27.05	1.92
velocity		7.75	8.18	7.79	7.03	7.67					7.75	8.18	7.79	7.03	7.96	7.39	
<b>Senn, Giulia (SUI) (2001)</b> time	12.62	25.03	38.08	52.24	52.24	52.24	52.24	52.24	52.24	4 / 7							
reaction time	0.176	12.41	13.05	14.16						# of strides	12.62	12.41	13.05	14.16	25.03	27.21	2.18
velocity		7.92	8.06	7.66	7.06	7.66					7.92	8.06	7.66	7.06	7.99	7.35	

## Heat 1

date 08-Jun-24

European Athletics (2024) - 2024 european athletics championships - results book

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Brossier, Amandine (FRA) (</b> time	12.70	24.67	37.36	51.30	51.30	51.30	51.30	51.30	51.30	6 / 1							
reaction time	0.207	11.97	12.69	13.94						# of strides	12.70	11.97	12.69	13.94	24.67	26.63	1.96
velocity		7.87	8.35	7.88	7.17	7.80					7.87	8.35	7.88	7.17	8.11	7.51	
<b>Baumgart-Witan, Iga (POL) (</b> time	12.95	24.89	37.68	52.18	52.18	52.18	52.18	52.18	52.18	7 / 2							
reaction time	0.180	11.94	12.79	14.50						# of strides	12.95	11.94	12.79	14.50	24.89	27.29	2.40
velocity		7.72	8.38	7.82	6.90	7.67					7.72	8.38	7.82	6.90	8.04	7.33	
<b>Trevisan, Giancaria (ITA) (19</b> time	12.63	24.69	37.78	52.22	52.22	52.22	52.22	52.22	52.22	4 / 3							
reaction time	0.192	12.06	13.09	14.44						# of strides	12.63	12.06	13.09	14.44	24.69	27.53	2.84
velocity		7.92	8.29	7.64	6.93	7.66					7.92	8.29	7.64	6.93	8.10	7.26	
<b>Niederberger, Julia (SUI) (20</b> time	12.78	24.76	37.81	52.42	52.42	52.42	52.42	52.42	52.42	8 / 4							
reaction time	0.193	11.98	13.05	14.61						# of strides	12.78	11.98	13.05	14.61	24.76	27.66	2.90
velocity		7.82	8.35	7.66	6.84	7.63					7.82	8.35	7.66	6.84	8.08	7.23	
<b>Azevedo, Cátia (POR) (1994)</b> time	12.71	24.65	37.68	52.53	52.53	52.53	52.53	52.53	52.53	9 / 5							
reaction time	0.243	11.94	13.03	14.85						# of strides	12.71	11.94	13.03	14.85	24.65	27.88	3.23
velocity		7.87	8.38	7.67	6.73	7.61					7.87	8.38	7.67	6.73	8.11	7.17	
<b>Karpiuk, Kateryna (UKR) (19</b> time	12.92	25.03	38.29	53.06	53.06	53.06	53.06	53.06	53.06	5 / 6							
reaction time	0.179	12.11	13.26	14.77						# of strides	12.92	12.11	13.26	14.77	25.03	28.03	3.00
velocity		7.74	8.26	7.54	6.77	7.54					7.74	8.26	7.54	6.77	7.99	7.14	

## 2024 Bauhaus Galan (Stockholm, SWE)

## FINAL

date 02-Jun-24

Omega Timing (2024) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Holmes, Alexis (USA) (2000)</b> time	6.69	12.25	17.93	24.06	30.41	37.02	43.92	51.18	51.18	5 / 1							
reaction time	0.142	5.56	5.68	6.13	6.35	6.61	6.90	7.26		# of strides	12.25	11.81	12.96	14.16	24.06	27.12	3.06
velocity		7.47	8.99	8.80	8.16	7.87	7.56	6.89	7.82		8.16	8.47	7.72	7.06	8.31	7.37	
<b>Geldenhuis, Zenéy (RSA) (2</b> time	6.79	12.47	18.33	24.50	30.94	37.56	44.61	52.12	52.12	2 / 2							
reaction time	0.160	5.68	5.86	6.17	6.44	6.62	7.05	7.51		# of strides	12.47	12.03	13.06	14.56	24.50	27.62	3.12
velocity		7.36	8.80	8.53	8.10	7.76	7.55	7.09	7.67		8.02	8.31	7.66	6.87	8.16	7.24	
<b>Becker, Sophie (IRL) (1997)</b> time	6.72	12.32	18.21	24.52	31.09	37.90	44.80	52.17	52.17	7 / 3							
reaction time	0.170	5.60	5.89	6.31	6.57	6.81	6.90	7.37		# of strides	12.32	12.20	13.38	14.27	24.52	27.65	3.13
velocity		7.44	8.93	8.49	7.92	7.61	7.34	6.78	7.67		8.12	8.20	7.47	7.01	8.16	7.23	
<b>de Witte, Lisanne (NED) (19</b> time	7.09	12.98	18.87	25.12	31.58	38.19	45.01	52.17	52.17	3 / 4							
reaction time	0.182	5.89	5.89	6.25	6.46	6.61	6.82	7.16		# of strides	12.98	12.14	13.07	13.98	25.12	27.05	1.93
velocity		7.05	8.49	8.49	8.00	7.74	7.56	6.98	7.67		7.70	8.24	7.65	7.15	7.96	7.39	
<b>Frobe, Linnéa (SWE) (1998)</b> time	6.98	12.74	18.82	25.16	31.61	38.40	45.75	54.03	54.03	8 / 5							
reaction time	0.210	5.76	6.08	6.34	6.45	6.79	7.35	8.28		# of strides	12.74	12.42	13.24	15.63	25.16	28.87	3.71
velocity		7.16	8.68	8.22	7.89	7.75	7.36	6.80	7.40		7.85	8.05	7.55	6.40	7.95	6.93	
<b>Claesson, Jonna (SWE) (200</b> time	7.05	12.92	18.94	25.38	32.15	39.17	46.54	54.57	54.57	4 / 6							
reaction time	0.222	5.87	6.02	6.44	6.77	7.02	7.37	8.03		# of strides	12.92	12.46	13.79	15.40	25.38	29.19	3.81
velocity		7.09	8.52	8.31	7.76	7.39	7.12	6.78	7.33		7.74	8.03	7.25	6.49	7.88	6.85	
<b>Hjelmer, Moa (SWE) (1990)</b> time	7.00	12.76	18.80	25.27	32.03	39.12	46.53	54.79	54.79	6 / 7							
reaction time	0.176	5.76	6.04	6.47	6.76	7.09	7.41	8.26		# of strides	12.76	12.51	13.85	15.67	25.27	29.52	4.25

velocity	7.14	8.68	8.28	7.73	7.40	7.05	6.75	6.05	7.30		7.84	7.99	7.22	6.38	7.91	6.78	
<b>Risber Thoor, Josephine (SV)</b> time	7.23	13.32	19.43	25.82	32.53	39.49	47.00	55.55	55.55	1 / 8							
reaction time 0.214 interval		6.09	6.11	6.39	6.71	6.96	7.51	8.55		# of strides	13.32	12.50	13.67	16.06	25.82	29.73	3.91
velocity	6.92	8.21	8.18	7.82	7.45	7.18	6.66	5.85	7.20		7.51	8.00	7.32	6.23	7.75	6.73	

**2024 Bislett Games (Oslo, NOR)**

FINAL

date 30-May-24

Omega Timing (2024) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Paulino, Marileidy (DOM) (19)</b> time	6.80	12.33	18.06	23.84	29.79	36.04	42.46	49.30	49.30	6 / 1							
reaction time 0.161 interval		5.53	5.73	5.78	5.95	6.25	6.42	6.84		# of strides	12.33	11.51	12.20	13.26	23.84	25.46	1.62
velocity	7.35	9.04	8.73	8.65	8.40	8.00	7.79	7.31	8.11	171.5	8.11	8.69	8.20	7.54	8.39	7.86	
<b>Kaczmarek, Natalia (POL) (19)</b> time	6.80	12.29	17.85	23.72	29.79	36.31	42.83	49.80	49.80	5 / 2							
reaction time 0.150 interval		5.49	5.56	5.87	6.07	6.52	6.52	6.97		# of strides	12.29	11.43	12.59	13.49	23.72	26.08	2.36
velocity	7.35	9.11	8.99	8.52	8.24	7.67	7.67	7.17	8.03	195.0	8.14	8.75	7.94	7.41	8.43	7.67	
<b>Holmes, Alexis (USA) (2000)</b> time	6.69	12.15	17.79	23.66	29.85	36.34	43.11	50.40	50.40	8 / 3							
reaction time 0.154 interval		5.46	5.64	5.87	6.19	6.49	6.77	7.29		# of strides	12.15	11.51	12.68	14.06	23.66	26.74	3.08
velocity	7.47	9.16	8.87	8.52	8.08	7.70	7.39	6.86	7.94	185.2	8.23	8.69	7.89	7.11	8.45	7.48	
<b>Klaver, Lieke (NED) (1998)</b> time	6.77	12.26	17.97	23.77	29.89	36.42	43.24	50.62	50.62	7 / 4							
reaction time 0.171 interval		5.49	5.71	5.80	6.12	6.53	6.82	7.38		# of strides	12.26	11.51	12.65	14.20	23.77	26.85	3.08
velocity	7.39	9.11	8.76	8.62	8.17	7.66	7.33	6.78	7.90	186.5	8.16	8.69	7.91	7.04	8.41	7.45	
<b>Williams, Sada (BAR) (1997)</b> time	6.72	12.28	17.99	23.77	29.81	36.37	43.24	50.71	50.71	3 / 5							
reaction time 0.182 interval		5.56	5.71	5.78	6.04	6.56	6.87	7.47		# of strides	12.28	11.49	12.60	14.34	23.77	26.94	3.17
velocity	7.44	8.99	8.76	8.65	8.28	7.62	7.28	6.69	7.89	192.2	8.14	8.70	7.94	6.97	8.41	7.42	
<b>Jæger, Henriette (NOR) (200)</b> time	6.76	12.34	18.06	24.03	30.16	36.73	43.58	50.81	50.81	4 / 6							
reaction time 0.154 interval		5.58	5.72	5.97	6.13	6.57	6.85	7.23	NR PB	# of strides	12.34	11.69	12.70	14.08	24.03	26.78	2.75
velocity	7.40	8.96	8.74	8.38	8.16	7.61	7.30	6.92	7.87	196.2	8.10	8.55	7.87	7.10	8.32	7.47	
<b>Nielsen, Laviai (GBR) (1996)</b> time	6.73	12.46	18.29	24.39	30.64	37.18	43.83	51.04	51.04	2 / 7							
reaction time 0.147 interval		5.73	5.83	6.10	6.25	6.54	6.65	7.21		# of strides	12.46	11.93	12.79	13.86	24.39	26.65	2.26
velocity	7.43	8.73	8.58	8.20	8.00	7.65	7.52	6.93	7.84	191.0	8.03	8.38	7.82	7.22	8.20	7.50	
<b>Ohurougu, Victoria (GBR) (19)</b> time	7.03	12.72	18.47	24.58	30.78	37.33	44.30	51.61	51.61	1 / 8							
reaction time 0.161 interval		5.69	5.75	6.11	6.20	6.55	6.97	7.31		# of strides	12.72	11.86	12.75	14.28	24.58	27.03	2.45
velocity	7.11	8.79	8.70	8.18	8.06	7.63	7.17	6.84	7.75	194.2	7.86	8.43	7.84	7.00	8.14	7.40	

**2024 Shimane High School Championships (Izumo, JPN)**

FINAL

date 24-May-24

Shimizu (2024) - shimane high school championships 2024 - biomechanics data analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Okuni, Chinatsu (JPN)</b> time		14.42		28.20		42.91		57.54	57.54	7 / 1							
reaction time interval				13.78		14.71		14.63		# of strides	14.42	13.78	14.71	14.63	28.20	29.34	1.14
velocity		6.93		7.26		6.80		6.84	6.95	144.2	6.93	7.26	6.80	6.84	7.09	6.82	
<b>Esumi, Kazuka (JPN)</b> time		13.53		26.93		41.88		57.88	57.88	6 / 2							
reaction time interval				13.40		14.95		16.00		# of strides	13.53	13.40	14.95	16.00	26.93	30.95	4.02
velocity		7.39		7.46		6.69		6.25	6.91	135.3	7.39	7.46	6.69	6.25	7.43	6.46	
<b>Noda, Kazuha (JPN)</b> time		14.07		28.33		42.47		60.06	60.06	5 / 3							
reaction time interval				14.26		14.14		17.59		# of strides	14.07	14.26	14.14	17.59	28.33	31.73	3.40
velocity		7.11		7.01		7.07		5.69	6.66	140.7	7.11	7.01	7.07	5.69	7.06	6.30	
<b>Yamamoto, Mizuke (JPN)</b> time		14.40		28.63		43.76		60.47	60.47	8 / 4							
reaction time interval				14.23		15.13		16.71		# of strides	14.40	14.23	15.13	16.71	28.63	31.84	3.21
velocity		6.94		7.03		6.61		5.98	6.61	6.94	7.03	6.61	5.98	6.99	6.28		
<b>Matsui, Minata (JPN)</b> time		14.97		29.45		44.99		61.97	61.97	9 / 5							
reaction time interval				14.48		15.54		16.98		# of strides	14.97	14.48	15.54	16.98	29.45	32.52	3.07
velocity		6.68		6.91		6.44		5.89	6.45	6.68	6.91	6.44	5.89	6.79	6.15		
<b>Ishikawa, Akane (JPN)</b> time		13.96		28.15		44.31		62.44	62.44	3 / 6							
reaction time interval				14.19		16.16		18.13		# of strides	13.96	14.19	16.16	18.13	28.15	34.29	6.14
velocity		7.16		7.05		6.19		5.52	6.41	7.16	7.05	6.19	5.52	7.10	5.83		
<b>Kishimoto, Reina (JPN)</b> time		14.60		29.08		45.16		62.68	62.68	2 / 7							
reaction time interval				14.48		16.08		17.52		# of strides	14.60	14.48	16.08	17.52	29.08	33.60	4.52
velocity		6.85		6.91		6.22		5.71	6.38	6.85	6.91	6.22	5.71	6.88	5.95		
<b>Mitsui, Sakiya (JPN)</b> time		14.05		28.57		45.04		63.70	63.70	4 / 8							
reaction time interval				14.52		16.47		18.66		# of strides	14.05	14.52	16.47	18.66	28.57	35.13	6.56
velocity		7.12		6.89		6.07		5.36	6.28	7.12	6.89	6.07	5.36	7.00	5.69		

**2024 Seashore Doha Meeting (Doha, QAT)**

FINAL - West Asiar

date 10-May-24

Omega Timing (2024) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>William Karlo, Lucia (SSD) (2)</b> time									56.83	8 / 1							
reaction time 0.182 interval										# of strides							
velocity																	
<b>Taslakian, Greta (LBN) (1985)</b> time	7.45	13.72	20.35	27.31	34.61	42.25	50.10	58.36	58.36	5 / 2							
reaction time 0.208 interval		6.27	6.63	6.96	7.30	7.64	7.85	8.26		# of strides	13.72	13.59	14.94	16.11	27.31	31.05	3.74
velocity	6.71	7.97	7.54	7.18	6.85	6.54	6.37	6.05	6.85	7.29	7.36	6.69	6.21	7.32	6.44		
<b>Nohra, Maria (LBN) (2001)</b> time	7.11	13.26	19.93	27.02	34.39	42.03	49.97	58.36	58.36	7 / 3							
reaction time 0.179 interval		6.15	6.67	7.09	7.37	7.64	7.94	8.39		# of strides	13.26	13.76	15.01	16.33	27.02	31.34	4.32



velocity	7.03	8.13	7.50	7.05	6.78	6.54	6.30	5.96	6.85		7.54	7.27	6.66	6.12	7.40	6.38	
<b>Almohamad, Ghufan (SYR)</b> time	7.44	13.92	20.75	27.95	35.44	43.39	51.65	60.74	60.74	6 / 4							
reaction time 0.180 interval		6.48	6.83	7.20	7.49	7.95	8.26	9.09		# of strides	13.92	14.03	15.44	17.35	27.95	32.79	4.84
velocity	6.72	7.72	7.32	6.94	6.68	6.29	6.05	5.50	6.59		7.18	7.13	6.48	5.76	7.16	6.10	
<b>Al Qassimi, Hanaa Juma Mas</b> time	7.17	13.34	19.86	26.89	34.45	42.63	51.47	61.96	61.96	3 / 5							
reaction time 0.178 interval		6.17	6.52	7.03	7.56	8.18	8.84	10.49		# of strides	13.34	13.55	15.74	19.33	26.89	35.07	8.18
velocity	6.97	8.10	7.67	7.11	6.61	6.11	5.66	4.77	6.46		7.50	7.38	6.35	5.17	7.44	5.70	

## 2024 Xiamen Diamond League (Xiamen, CHN)

## FINAL

date 20-Apr-24

Omega Timing (2024) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Paulino, Marileidy (DOM) (19)</b> time	6.74	12.32	18.03	23.97	30.11	36.47	43.01	50.08	50.08	5 / 1							
reaction time 0.180 interval		5.58	5.71	5.94	6.14	6.36	6.54	7.07		# of strides	12.32	11.65	12.50	13.61	23.97	26.11	2.14
velocity	7.42	8.96	8.76	8.42	8.14	7.86	7.65	7.07	7.99	173.0	8.12	8.58	8.00	7.35	8.34	7.66	
<b>Kaczmarek, Natalia (POL) (15)</b> time	6.79	12.41	18.07	24.02	30.21	36.68	43.31	50.29	50.29	6 / 2							
reaction time 0.180 interval		5.62	5.66	5.95	6.19	6.47	6.63	6.98		# of strides	12.41	11.61	12.66	13.61	24.02	26.27	2.25
velocity	7.36	8.90	8.83	8.40	8.08	7.73	7.54	7.16	7.95	193.0	8.06	8.61	7.90	7.35	8.33	7.61	
<b>Wilson, Britton (USA) (2000)</b> time	6.90	12.67	18.45	24.36	30.48	36.89	43.70	51.26	51.26	7 / 3							
reaction time 0.178 interval		5.77	5.78	5.91	6.12	6.41	6.81	7.56		# of strides	12.67	11.69	12.53	14.37	24.36	26.90	2.54
velocity	7.25	8.67	8.65	8.46	8.17	7.80	7.34	6.61	7.80	183.0	7.89	8.55	7.98	6.96	8.21	7.43	
<b>Williams, Sada (BAR) (1997)</b> time	6.62	12.25	17.98	23.98	30.34	37.05	44.17	51.97	51.97	4 / 4							
reaction time 0.179 interval		5.63	5.73	6.00	6.36	6.71	7.12	7.80		# of strides	12.25	11.73	13.07	14.92	23.98	27.99	4.01
velocity	7.55	8.88	8.73	8.33	7.86	7.45	7.02	6.41	7.70	194.0	8.16	8.53	7.65	6.70	8.34	7.15	
<b>Beer, Ellie (AUS) (2003)</b> time	6.91	12.43	18.22	24.42	30.90	37.64	44.67	52.36	52.36	9 / 5							
reaction time 0.222 interval		5.52	5.79	6.20	6.48	6.74	7.03	7.69		# of strides	12.43	11.99	13.22	14.72	24.42	27.94	3.52
velocity	7.24	9.06	8.64	8.06	7.72	7.42	7.11	6.50	7.64	189.0	8.05	8.34	7.56	6.79	8.19	7.16	
<b>Whitney, Kaylin (USA) (1998)</b> time	6.98	12.68	18.47	24.48	30.82	37.56	44.68	52.47	52.47	2 / 6							
reaction time 0.256 interval		5.70	5.79	6.01	6.34	6.74	7.12	7.79		# of strides	12.68	11.80	13.08	14.91	24.48	27.99	3.51
velocity	7.16	8.77	8.64	8.32	7.89	7.42	7.02	6.42	7.62	7.89	7.89	8.47	7.65	6.71	8.17	7.15	
<b>Abrams, Aliyah (GUY) (1997)</b> time	6.91	12.63	18.48	24.53	30.90	37.63	44.81	52.69	52.69	3 / 7							
reaction time 0.160 interval		5.72	5.85	6.05	6.37	6.73	7.18	7.88		# of strides	12.63	11.90	13.10	15.06	24.53	28.16	3.63
velocity	7.24	8.74	8.55	8.26	7.85	7.43	6.96	6.35	7.59	205.5	7.92	8.40	7.63	6.64	8.15	7.10	
<b>Aguilar, Evelis (COL) (1993)</b> time	7.13	13.16	19.38	25.77	32.20	38.81	45.62	52.97	52.97	8 / 8							
reaction time 0.151 interval		6.03	6.22	6.39	6.43	6.61	6.81	7.35		# of strides	13.16	12.61	13.04	14.16	25.77	27.20	1.43
velocity	7.01	8.29	8.04	7.82	7.78	7.56	7.34	6.80	7.55	185.7	7.60	7.93	7.67	7.06	7.76	7.35	
<b>Guei, Floria (FRA) (1990)</b> time	7.07	13.00	19.11	25.38	31.96	38.75	45.86	53.65	53.65	1 / 9							
reaction time 0.167 interval		5.93	6.11	6.27	6.58	6.79	7.11	7.79		# of strides	13.00	12.38	13.37	14.90	25.38	28.27	2.89
velocity	7.07	8.43	8.18	7.97	7.60	7.36	7.03	6.42	7.46	7.69	8.08	7.48	6.71	7.88	7.07		

## 2023 Japanese National Sports Festival (Kagoshima, JPN) (300m)

## FINAL

date 15-Oct-23

Yamanaka (2024) - analysis of men's and women's 400m and 300m runs in the 2023 season

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Aono, Shuri (JPN) (2000)</b> time	6.93	12.72	18.56	24.59	30.79	37.33			37.33	5 / 1							
reaction time 0.197 interval		5.79	5.84	6.03	6.20	6.54			PB	# of strides	12.72	11.87	12.74		24.59		100m-300m
velocity	7.22	8.64	8.56	8.29	8.06	7.65			8.04	148.0	7.86	8.42	7.85		8.13		24.61
<b>Moriyama, Shizuho (JPN) (21)</b> time	6.61	12.22	18.07	24.21	30.63	37.56			37.56	7 / 2							
reaction time 0.197 interval		5.61	5.85	6.14	6.42	6.93			PB	# of strides	12.22	11.99	13.35		24.21		100m-300m
velocity	7.56	8.91	8.55	8.14	7.79	7.22			7.99	154.0	8.18	8.34	7.49		8.26		25.34
<b>Matsumoto, Nanako (JPN) (1)</b> time	6.93	12.61	18.49	24.70	31.10	37.87			37.87	6 / 3							
reaction time 0.282 interval		5.68	5.88	6.21	6.40	6.77				# of strides	12.61	12.09	13.17		24.70		100m-300m
velocity	7.22	8.80	8.50	8.05	7.81	7.39			7.92	150.5	7.93	8.27	7.59		8.10		25.26
<b>Kuboyama, Haruna (JPN) (11)</b> time	6.82	12.54	18.46	24.63	31.09	38.09			38.09	4 / 4							
reaction time 0.341 interval		5.72	5.92	6.17	6.46	7.00				# of strides	12.54	12.09	13.46		24.63		100m-300m
velocity	7.33	8.74	8.45	8.10	7.74	7.14			7.88	157.0	7.97	8.27	7.43		8.12		25.55
<b>Iwata, Yuna (JPN) (1997)</b> time	6.90	12.66	18.60	24.85	31.28	38.15			38.15	3 / 5							
reaction time 0.181 interval		5.76	5.94	6.25	6.43	6.87				# of strides	12.66	12.19	13.30		24.85		100m-300m
velocity	7.25	8.68	8.42	8.00	7.78	7.28			7.86	158.5	7.90	8.20	7.52		8.05		25.49

## U20 FINAL

date 14-Oct-23

Yamanaka (2024) - analysis of men's and women's 400m and 300m runs in the 2023 season

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
<b>Yamagata, Aiha (JPN) (2005)</b> time	6.71	12.49	18.54	24.72	31.04	37.73			37.73	5 / 1								
reaction time 0.208 interval		5.78	6.05	6.18	6.32	6.69			PB	# of strides	12.49	12.23	13.01		24.72		100m-300m	
velocity	7.45	8.65	8.26	8.09	7.91	7.47			7.95	149.0	8.01	8.18	7.69		8.09		25.24	
<b>Miyachi, Ririka (JPN) (2005)</b> time	6.91	12.65	18.58	24.71	31.14	38.35			38.35	6 / 2								
reaction time 0.186 interval		5.74	5.93	6.13	6.43	7.21			PB	# of strides	12.65	12.06	13.64		24.71		100m-300m	
velocity	7.24	8.71	8.43	8.16	7.78	6.93			7.82	149.0	7.91	8.29	7.33		8.09		25.70	
<b>Saita, Jennifer (JPN) (2006)</b> time	6.62	12.26	18.23	24.52	31.20	38.43			38.43	2 / 3								
reaction time 0.193 interval		5.64	5.97	6.29	6.68	7.23			PB	# of strides	12.26	12.26	13.91		24.52		100m-300m	
velocity	7.55	8.87	8.38	7.95	7.49	6.92			7.81	149.0	8.16	8.16	7.19		8.16		26.17	
<b>Ehara, Mizuyu (JPN) (2005)</b> time	7.03	12.85	18.81	24.96	31.49	38.48			38.48	3 / 4								
																		100m-300m

reaction time	0.192	interval	5.82	5.96	6.15	6.53	6.99		<b>PB</b>	# of strides	12.85	12.11	13.52	24.96	25.63
velocity	7.11		8.59	8.39	8.13	7.66	7.15		7.80		7.78	8.26	7.40	8.01	7.80
<b>Miura, Karen (JPN) (2005)</b>	time	6.91	12.72	18.78	25.11	31.62	38.53		38.53	4 / 5					<b>100m-300m</b>
reaction time	0.180	interval	5.81	6.06	6.33	6.51	6.91		<b>PB</b>	# of strides	12.72	12.39	13.42	25.11	25.81
velocity	7.24		8.61	8.25	7.90	7.68	7.24		7.79		7.86	8.07	7.45	7.96	7.75

**2023 Prefontaine Classic (Eugene, OR)****FINAL**

date 17-Sep-23

Omega Timing (2023) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Paulino, Marileidy (DOM) (19)</b>	time	6.83	12.45	18.06	23.91	29.98	36.27	42.74	49.58	5 / 1							
reaction time	0.182	interval	5.62	5.61	5.85	6.07	6.29	6.47	6.84	# of strides	12.45	11.46	12.36	13.31	23.91	25.67	1.76
velocity	7.32		8.90	8.91	8.55	8.24	7.95	7.73	7.31	172.2	8.03	8.73	8.09	7.51	8.36	7.79	
<b>Kaczmarek, Natalia (POL) (1f)</b>	time	6.84	12.51	18.22	24.32	30.58	36.97	43.51	50.38	6 / 2							
reaction time	0.160	interval	5.67	5.71	6.10	6.26	6.39	6.54	6.87	# of strides	12.51	11.81	12.65	13.41	24.32	26.06	1.74
velocity	7.31		8.82	8.76	8.20	7.99	7.82	7.65	7.28	193.0	7.99	8.47	7.91	7.46	8.22	7.67	
<b>Klaver, Lieke (NED) (1998)</b>	time	6.76	12.40	18.21	24.35	30.61	37.00	43.56	50.47	8 / 3							
reaction time	0.139	interval	5.64	5.81	6.14	6.26	6.39	6.56	6.91	# of strides	12.40	11.95	12.65	13.47	24.35	26.12	1.77
velocity	7.40		8.87	8.61	8.14	7.99	7.82	7.62	7.24	7.93	8.06	8.37	7.91	7.42	8.21	7.66	
<b>McLeod, Candice (JAM) (19f)</b>	time	6.79	12.37	18.04	23.98	30.13	36.53	43.34	50.76	4 / 4							
reaction time	0.157	interval	5.58	5.67	5.94	6.15	6.40	6.81	7.42	# of strides	12.37	11.61	12.55	14.23	23.98	26.78	2.80
velocity	7.36		8.96	8.82	8.42	8.13	7.81	7.34	6.74	200.5	8.08	8.61	7.97	7.03	8.34	7.47	
<b>Williams, Sada (BAR) (1997)</b>	time	6.69	12.35	18.16	24.25	30.41	36.86	43.67	51.07	7 / 5							
reaction time	0.190	interval	5.66	5.81	6.09	6.16	6.45	6.81	7.40	# of strides	12.35	11.90	12.61	14.21	24.25	26.82	2.57
velocity	7.47		8.83	8.61	8.21	8.12	7.75	7.34	6.76	7.83	8.10	8.40	7.93	7.04	8.25	7.46	
<b>Ohurougu, Victoria (GBR) (1f)</b>	time	6.88	12.50	18.33	24.47	30.77	37.28	44.03	51.15	3 / 6							
reaction time	0.162	interval	5.62	5.83	6.14	6.30	6.51	6.75	7.12	# of strides	12.50	11.97	12.81	13.87	24.47	26.68	2.21
velocity	7.27		8.90	8.58	8.14	7.94	7.68	7.41	7.02	7.82	8.00	8.35	7.81	7.21	8.17	7.50	
<b>Irby-Jackson, Lynna (USA) (1f)</b>	time	6.63	12.04	17.79	23.86	30.10	36.65	43.67	51.60	9 / 7							
reaction time	0.175	interval	5.41	5.75	6.07	6.24	6.55	7.02	7.93	# of strides	12.04	11.82	12.79	14.95	23.86	27.74	3.88
velocity	7.54		9.24	8.70	8.24	8.01	7.63	7.12	6.31	7.75	8.31	8.46	7.82	6.69	8.38	7.21	
<b>Abrams, Aliyah (GUY) (1997)</b>	time	6.77	12.37	18.15	24.29	30.62	37.27	44.31	51.97	2 / 8							
reaction time	0.137	interval	5.60	5.78	6.14	6.33	6.65	7.04	7.66	# of strides	12.37	11.92	12.98	14.70	24.29	27.68	3.39
velocity	7.39		8.93	8.65	8.14	7.90	7.52	7.10	6.53	7.70	8.08	8.39	7.70	6.80	8.23	7.23	

**2023 Memorial van Damme (Brussels, BEL)****FINAL**

date 08-Sep-23

Omega Timing (2023) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Bolingo, Cynthia (BEL) (199)</b>	time	6.71	12.20	17.87	23.79	30.01	36.46	43.15	50.09	4 / 1							
reaction time	0.186	interval	5.49	5.67	5.92	6.22	6.45	6.69	6.94	# of strides	12.20	11.59	12.67	13.63	23.79	26.30	2.51
velocity	7.45		9.11	8.82	8.45	8.04	7.75	7.47	7.20	192.0	8.20	8.63	7.89	7.34	8.41	7.60	
<b>Klaver, Lieke (NED) (1998)</b>	time	6.59	11.97	17.59	23.47	29.78	36.32	43.03	50.16	6 / 2							
reaction time	0.180	interval	5.38	5.62	5.88	6.31	6.54	6.71	7.13	# of strides	11.97	11.50	12.85	13.84	23.47	26.69	3.22
velocity	7.59		9.29	8.90	8.50	7.92	7.65	7.45	7.01	186.0	8.35	8.70	7.78	7.23	8.52	7.49	
<b>Little, Shamier (USA) (1995)</b>	time	6.59	11.99	17.56	23.46	29.64	36.14	43.01	50.58	5 / 3							
reaction time	0.152	interval	5.40	5.57	5.90	6.18	6.50	6.87	7.57	# of strides	11.99	11.47	12.68	14.44	23.46	27.12	3.66
velocity	7.59		9.26	8.98	8.47	8.09	7.69	7.28	6.61	190.0	8.34	8.72	7.89	6.93	8.53	7.37	
<b>Ohurougu, Victoria (GBR) (1f)</b>	time	6.92	12.66	18.47	24.45	30.60	37.02	43.73	50.81	8 / 4							
reaction time	0.218	interval	5.74	5.81	5.98	6.15	6.42	6.71	7.08	# of strides	12.66	11.79	12.57	13.79	24.45	26.36	1.91
velocity	7.23		8.71	8.61	8.36	8.13	7.79	7.45	7.06	7.87	7.90	8.48	7.96	7.25	8.18	7.59	
<b>McLeod, Candice (JAM) (19f)</b>	time	6.78	12.25	17.93	23.87	30.10	36.57	43.41	50.82	7 / 5							
reaction time	0.175	interval	5.47	5.68	5.94	6.23	6.47	6.84	7.41	# of strides	12.25	11.62	12.70	14.25	23.87	26.95	3.08
velocity	7.37		9.14	8.80	8.42	8.03	7.73	7.31	6.75	199.2	8.16	8.61	7.87	7.02	8.38	7.42	
<b>Nielsen, Laviai (GBR) (1996)</b>	time	6.69	12.18	17.92	23.92	30.16	36.67	43.47	50.84	3 / 6							
reaction time	0.174	interval	5.49	5.74	6.00	6.24	6.51	6.80	7.37	# of strides	12.18	11.74	12.75	14.17	23.92	26.92	3.00
velocity	7.47		9.11	8.71	8.33	8.01	7.68	7.35	6.78	7.87	8.21	8.52	7.84	7.06	8.36	7.43	
<b>Ponette, Helena (BEL) (2000)</b>	time	7.02	12.55	18.33	24.42	30.74	37.29	44.25	51.87	2 / 7							
reaction time	0.148	interval	5.53	5.78	6.09	6.32	6.55	6.96	7.62	# of strides	12.55	11.87	12.87	14.58	24.42	27.45	3.03
velocity	7.12		9.04	8.65	8.21	7.91	7.63	7.18	6.56	7.71	7.97	8.42	7.77	6.86	8.19	7.29	

**B Race**

date 08-Sep-23

Omega Timing (2023) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Brossier, Amandine (FRA) (1f)</b>	time	6.86	12.53	18.40	24.49	30.75	37.15	43.97	51.40	8 / 1							
reaction time	0.191	interval	5.67	5.87	6.09	6.26	6.40	6.82	7.43	# of strides	12.53	11.96	12.66	14.25	24.49	26.91	2.42
velocity	7.29		8.82	8.52	8.21	7.99	7.81	7.33	6.73	7.78	7.98	8.36	7.90	7.02	8.17	7.43	
<b>Vervae, Imke (BEL) (1993)</b>	time	6.76	12.39	18.21	24.34	30.84	37.62	44.64	52.00	6 / 2							
reaction time	0.157	interval	5.63	5.82	6.13	6.50	6.78	7.02	7.36	# of strides	12.39	11.95	13.28	14.38	24.34	27.66	3.32
velocity	7.40		8.88	8.59	8.16	7.69	7.37	7.12	6.79	7.69	8.07	8.37	7.53	6.95	8.22	7.23	
<b>Whitney, Kaylin (USA) (1998)</b>	time	7.03	12.87	18.86	25.06	31.56	38.20	44.99	52.11	3 / 3							
reaction time	0.215	interval	5.84	5.99	6.20	6.50	6.64	6.79	7.12	# of strides	12.87	12.19	13.14	13.91	25.06	27.05	1.99
velocity	7.11		8.56	8.35	8.06	7.69	7.53	7.36	7.02	7.68	7.77	8.20	7.61	7.19	7.98	7.39	

<b>Saalberg, Eveline (NED) (199)</b>	time	6.93	12.65	18.50	24.66	31.11	37.84	44.78	52.31	52.31	7 / 4							
	reaction time	0.222	interval	5.72	5.85	6.16	6.45	6.73	6.94	7.53	# of strides	12.65	12.01	13.18	14.47	24.66	27.65	2.99
	velocity	7.22	8.74	8.55	8.12	7.75	7.43	7.20	6.64	7.65		7.91	8.33	7.59	6.91	8.11	7.23	
<b>Peeters, Cathelijin (NED) (19)</b>	time	7.04	12.91	18.99	25.36	31.87	38.56	45.44	52.72	52.72	4 / 5							
	reaction time	0.222	interval	5.87	6.08	6.37	6.51	6.69	6.88	7.28	# of strides	12.91	12.45	13.20	14.16	25.36	27.36	2.00
	velocity	7.10	8.52	8.22	7.85	7.68	7.47	7.27	6.87	7.59		7.75	8.03	7.58	7.06	7.89	7.31	
<b>Laus, Camille (BEL) (1993)</b>	time	7.17	13.27	19.52	26.03	32.68	39.47	46.30	53.31	53.31	5 / 6							
	reaction time	0.218	interval	6.10	6.25	6.51	6.65	6.79	6.83	7.01	# of strides	13.27	12.76	13.44	13.84	26.03	27.28	1.25
	velocity	6.97	8.20	8.00	7.68	7.52	7.36	7.32	7.13	7.50		7.54	7.84	7.44	7.23	7.68	7.33	
<b>Gaye, Fatou (SEN) (1997)</b>	time	6.83	12.85	19.15	25.74	32.72	39.74	46.84	54.19	54.19	2 / 7							
	reaction time	0.197	interval	6.02	6.30	6.59	6.98	7.02	7.10	7.35	# of strides	12.85	12.89	14.00	14.45	25.74	28.45	2.71
	velocity	7.32	8.31	7.94	7.59	7.16	7.12	7.04	6.80	7.38		7.78	7.76	7.14	6.92	7.77	7.03	
<b>Lambert, Kylie (BEL) (2004)</b>	time	6.91	12.78	19.02	25.46	32.21	39.30	46.77	54.84	54.84	1 / 8							
	reaction time	0.178	interval	5.87	6.24	6.44	6.75	7.09	7.47	8.07	# of strides	12.78	12.68	13.84	15.54	25.46	29.38	3.92
	velocity	7.24	8.52	8.01	7.76	7.41	7.05	6.69	6.20	7.29		7.82	7.89	7.23	6.44	7.86	6.81	

## 2023 Xiamen Diamond League (Xiamen, CHN)

## FINAL

date 02-Sep-23

Omega Timing (2023) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Paulino, Marileidy (DOM) (19)</b>	time	6.70	12.40	18.20	24.20	30.20	36.40	42.70	49.36	49.36	5 / 1							
	reaction time	0.160	interval	5.70	5.80	6.00	6.00	6.20	6.30	6.66	# of strides	12.40	11.80	12.20	12.96	24.20	25.16	0.96
	velocity	7.46	8.77	8.62	8.33	8.33	8.06	7.94	7.51	8.10		171.2	8.06	8.47	8.20	7.72	8.26	7.95
<b>McLeod, Candice (JAM) (19)</b>	time	6.75	12.32	18.05	24.02	30.14	36.51	43.07	50.19	50.19	6 / 2							
	reaction time	0.160	interval	5.57	5.73	5.97	6.12	6.37	6.56	7.12	# of strides	12.32	11.70	12.49	13.68	24.02	26.17	2.15
	velocity	7.41	8.98	8.73	8.38	8.17	7.85	7.62	7.02	7.97		197.7	8.12	8.55	8.01	7.31	8.33	7.64
<b>Irby-Jackson, Lynna (USA) (</b>	time	6.60	12.16	18.17	24.33	30.53	36.84	43.36	50.45	50.45	3 / 3							
	reaction time	0.155	interval	5.56	6.01	6.16	6.20	6.31	6.52	7.09	# of strides	12.16	12.17	12.51	13.61	24.33	26.12	1.79
	velocity	7.58	8.99	8.32	8.12	8.06	7.92	7.67	7.05	7.93		181.0	8.22	8.22	7.99	7.35	8.22	7.66
<b>Williams, Sada (BAR) (1997)</b>	time	6.65	12.27	18.07	24.07	30.22	36.68	43.44	50.95	50.95	4 / 4							
	reaction time	0.198	interval	5.62	5.80	6.00	6.15	6.46	6.76	7.51	# of strides	12.27	11.80	12.61	14.27	24.07	26.88	2.81
	velocity	7.52	8.90	8.62	8.33	8.13	7.74	7.40	6.66	7.85		8.15	8.47	7.93	7.01	8.31	7.44	
<b>Ohurougu, Victoria (GBR) (1</b>	time	6.97	12.69	18.67	24.81	30.96	37.38	44.05	51.24	51.24	8 / 5							
	reaction time	0.221	interval	5.72	5.98	6.14	6.15	6.42	6.67	7.19	# of strides	12.69	12.12	12.57	13.86	24.81	26.43	1.62
	velocity	7.17	8.74	8.36	8.14	8.13	7.79	7.50	6.95	7.81		7.88	8.25	7.96	7.22	8.06	7.57	
<b>Diggs, Talitha (USA) (2002)</b>	time	6.74	12.46	18.51	24.76	31.09	37.56	44.20	51.27	51.27	7 / 6							
	reaction time	0.156	interval	5.72	6.05	6.25	6.33	6.47	6.64	7.07	# of strides	12.46	12.30	12.80	13.71	24.76	26.51	1.75
	velocity	7.42	8.74	8.26	8.00	7.90	7.73	7.53	7.07	7.80		8.03	8.13	7.81	7.29	8.08	7.54	
<b>Weil, Martina (CHI) (1999)</b>	time	6.72	12.29	18.24	24.37	30.73	37.35	44.10	51.30	51.30	1 / 7							
	reaction time	0.160	interval	5.57	5.95	6.13	6.36	6.62	6.75	7.20	# of strides	12.29	12.08	12.98	13.95	24.37	26.93	2.56
	velocity	7.44	8.98	8.40	8.16	7.86	7.55	7.41	6.94	7.80		8.14	8.28	7.70	7.17	8.21	7.43	
<b>Pipi, Ama (GER) (1995)</b>	time	6.87	12.57	18.50	24.73	31.10	37.49	44.14	51.51	51.51	9 / 8							
	reaction time	0.198	interval	5.70	5.93	6.23	6.37	6.39	6.65	7.37	# of strides	12.57	12.16	12.76	14.02	24.73	26.78	2.05
	velocity	7.28	8.77	8.43	8.03	7.85	7.82	7.52	6.78	7.77		7.96	8.22	7.84	7.13	8.09	7.47	
<b>Dunmore, Makenzie (USA) (</b>	time	6.76	12.39	18.35	24.68	31.49	38.63	45.97	53.85	53.85	2 / 9							
	reaction time	0.135	interval	5.63	5.96	6.33	6.81	7.14	7.34	7.88	# of strides	12.39	12.29	13.95	15.22	24.68	29.17	4.49
	velocity	7.40	8.88	8.39	7.90	7.34	7.00	6.81	6.35	7.43		8.07	8.14	7.17	6.57	8.10	6.86	

## 2023 Weltklasse (Zürich, SUI)

## FINAL

date 31-Aug-23

Omega Timing (2023) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Miller-Uibo, Shaunae (BAH)</b>	time	6.78	12.39	18.27	24.48	30.83	37.32	44.20	51.83	51.83	6 / 1							
	reaction time	0.156	interval	5.61	5.88	6.21	6.35	6.49	6.88	7.63	# of strides	12.39	12.09	12.84	14.51	24.48	27.35	2.87
	velocity	7.37	8.91	8.50	8.05	7.87	7.70	7.27	6.55	7.72		8.07	8.27	7.79	6.89	8.17	7.31	
<b>Fahr, Annina (SUI) (1993)</b>	time	6.87	12.58	18.47	24.61	30.94	37.48	44.39	51.97	51.97	3 / 2							
	reaction time	0.156	interval	5.71	5.89	6.14	6.33	6.54	6.91	7.58	# of strides	12.58	12.03	12.87	14.49	24.61	27.36	2.75
	velocity	7.28	8.76	8.49	8.14	7.90	7.65	7.24	6.60	7.70		7.95	8.31	7.77	6.90	8.13	7.31	
<b>Niederberger, Julia (SUI) (20</b>	time	6.86	12.59	18.48	24.63	31.03	37.77	44.75	52.11	52.11	5 / 3							
	reaction time	0.153	interval	5.73	5.89	6.15	6.40	6.74	6.98	7.36	# of strides	12.59	12.04	13.14	14.34	24.63	27.48	2.85
	velocity	7.29	8.73	8.49	8.13	7.81	7.42	7.16	6.79	7.68		7.94	8.31	7.61	6.97	8.12	7.28	
<b>de Witte, Lisanne (NED) (19)</b>	time	7.03	12.84	18.77	24.94	31.31	37.99	44.94	52.23	52.23	2 / 4							
	reaction time	0.166	interval	5.81	5.93	6.17	6.37	6.68	6.95	7.29	# of strides	12.84	12.10	13.05	14.24	24.94	27.29	2.35
	velocity	7.11	8.61	8.43	8.10	7.85	7.49	7.19	6.86	7.66		7.79	8.26	7.66	7.02	8.02	7.33	
<b>Senn, Giulia (SUI) (2001)</b>	time	6.83	12.71	18.79	24.98	31.31	37.93	44.91	52.28	52.28	7 / 5							
	reaction time	0.168	interval	5.88	6.08	6.19	6.33	6.62	6.98	7.37	# of strides	12.71	12.27	12.95	14.35	24.98	27.30	2.32
	velocity	7.32	8.50	8.22	8.08	7.90	7.55	7.16	6.78	7.65		7.87	8.15	7.72	6.97	8.01	7.33	
<b>Saalberg, Eveline (NED) (199)</b>	time	6.82	12.41	18.17	24.21	30.63	37.41	44.57	52.32	52.32	4 / 6							
	reaction time	0.209	interval	5.59	5.76	6.04	6.42	6.78	7.16	7.75	# of strides	12.41	11.80	13.20	14.91	24.21	28.11	3.90
	velocity	7.33	8.94	8.68	8.28	7.79	7.37	6.98	6.45	7.65		8.06	8.47	7.58	6.71	8.26	7.11	
<b>Schmidt, Alica (GER) (1998)</b>	time	6.79	12.46	18.29	24.39	30.79	37.54	44.69	52.43	52.43	8 / 7							
	reaction time	0.155	interval	5.67	5.83	6.10	6.40	6.75	7.15	7.74	# of strides	12.46	11.93	13.15	14.89	24.39	28.04	3.65



velocity	7.36	8.82	8.58	8.20	7.81	7.41	6.99	6.46	7.63		8.03	8.38	7.60	6.72	8.20	7.13	
<b>Newnham, Emily (GBR) (200</b> time	7.06	13.01	19.28	25.81	32.29	38.80	45.51	52.59	52.59	1 / 8							
reaction time 0.177 interval		5.95	6.27	6.53	6.48	6.51	6.71	7.08		# of strides	13.01	12.80	12.99	13.79	25.81	26.78	0.97
velocity	7.08	8.40	7.97	7.66	7.72	7.68	7.45	7.06	7.61		7.69	7.81	7.70	7.25	7.75	7.47	

## 2023 World Athletics Championships (Budapest, HUN)

## FINAL

date 23-Aug-23

Seiko Timing (2023) - world championship race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Paulino, Marileidy (DOM) (19</b> time	12.28		23.36		35.34		48.76		48.76	7 / 1							
reaction time 0.200 interval			11.08		11.98		13.42		<b>NR PB</b>	# of strides	12.28	11.08	11.98	13.42	23.36	25.40	2.04
velocity	8.14		9.03		8.35		7.45		8.20	172.0	8.14	9.03	8.35	7.45	8.56	7.87	
<b>Kaczmarek, Natalia (POL) (1</b> time	12.30		23.46		35.92		49.57		49.57	6 / 2							
reaction time 0.168 interval			11.16		12.46		13.65			# of strides	12.30	11.16	12.46	13.65	23.46	26.11	2.65
velocity	8.13		8.96		8.03		7.33		8.07	192.0	8.13	8.96	8.03	7.33	8.53	7.66	
<b>Williams, Sada (BAR) (1997</b> time	12.08		23.49		35.90		49.60		49.60	8 / 3							
reaction time 0.183 interval			11.41		12.41		13.70			# of strides	12.08	11.41	12.41	13.70	23.49	26.11	2.62
velocity	8.28		8.76		8.06		7.30		8.06	190.5	8.28	8.76	8.06	7.30	8.51	7.66	
<b>Adeleke, Rhasidat (IRL) (200</b> time	12.22		23.54		35.90		50.13		50.13	4 / 4							
reaction time 0.181 interval			11.32		12.36		14.23			# of strides	12.22	11.32	12.36	14.23	23.54	26.59	3.05
velocity	8.18		8.83		8.09		7.03		7.98	184.7	8.18	8.83	8.09	7.03	8.50	7.52	
<b>Bolingo, Cynthia (BEL) (199</b> time	12.19		23.66		36.30		50.33		50.33	2 / 5							
reaction time 0.190 interval			11.47		12.64		14.03			# of strides	12.19	11.47	12.64	14.03	23.66	26.67	3.01
velocity	8.20		8.72		7.91		7.13		7.95	195.0	8.20	8.72	7.91	7.13	8.45	7.50	
<b>Klaver, Lieke (NED) (1998)</b> time	11.96		23.06		35.61		50.33		50.33	5 / 6							
reaction time 0.145 interval			11.10		12.55		14.72			# of strides	11.96	11.10	12.55	14.72	23.06	27.27	4.21
velocity	8.36		9.01		7.97		6.79		7.95	187.0	8.36	9.01	7.97	6.79	8.67	7.33	
<b>McLeod, Candice (JAM) (19</b> time	12.36		22.63		36.40		51.08		51.08	3 / 7							
reaction time 0.167 interval			10.27		13.77		14.68			# of strides	12.36	10.27	13.77	14.68	22.63	28.45	5.82
velocity	8.09		9.74		7.26		6.81		7.83	203.0	8.09	9.74	7.26	6.81	8.84	7.03	
<b>Diggs, Talitha (USA) (2002)</b> 0.167 no information available									51.25	9 / 8						# of strides	202.00

## Semi-Final 3

date 21-Aug-23

Seiko Timing (2023) - world championship race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Kaczmarek, Natalia (POL) (1</b> time	12.19		23.58		36.21		49.50		49.50	5 / 1							
reaction time 0.173 interval			11.39		12.63		13.29			# of strides	12.19	11.39	12.63	13.29	23.58	25.92	2.34
velocity	8.20		8.78		7.92		7.52		8.08	192.0	8.20	8.78	7.92	7.52	8.48	7.72	
<b>Williams, Sada (BAR) (1997</b> time	12.21		23.90		36.19		49.58		49.58	7 / 2							
reaction time 0.191 interval			11.69		12.29		13.39		<b>NR PB</b>	# of strides	12.21	11.69	12.29	13.39	23.90	25.68	1.78
velocity	8.19		8.55		8.14		7.47		8.07	190.0	8.19	8.55	8.14	7.47	8.37	7.79	
<b>Irby-Jackson, Lynna (USA) (</b> time	12.10		23.91		36.84		50.71		50.71	4 / 3							
reaction time 0.173 interval			11.81		12.93		13.87			# of strides	12.10	11.81	12.93	13.87	23.91	26.80	2.89
velocity	8.26		8.47		7.73		7.21		7.89	183.7	8.26	8.47	7.73	7.21	8.36	7.46	
<b>Ohuruogu, Victoria (GBR) (1</b> time	12.39		24.21		36.91		50.74		50.74	8 / 4							
reaction time 0.238 interval			11.82		12.70		13.83			# of strides	12.39	11.82	12.70	13.83	24.21	26.53	2.32
velocity	8.07		8.46		7.87		7.23		7.88	192.0	8.07	8.46	7.87	7.23	8.26	7.54	
<b>Miklós, Andrea (ROU) (1999</b> time	12.43		24.09		36.98		50.77		50.77	6 / 5							
reaction time 0.178 interval			11.66		12.89		13.79			# of strides	12.43	11.66	12.89	13.79	24.09	26.68	2.59
velocity	8.05		8.58		7.76		7.25		7.88	203.0	8.05	8.58	7.76	7.25	8.30	7.50	
<b>Young, Charokee (JAM) (20</b> time	12.62		24.34		37.49		51.40		51.40	3 / 6							
reaction time 0.207 interval			11.72		13.15		13.91			# of strides	12.62	11.72	13.15	13.91	24.34	27.06	2.72
velocity	7.92		8.53		7.60		7.19		7.78		7.92	8.53	7.60	7.19	8.22	7.39	
<b>Gogl-Walli, Susanne (AUT) (</b> time	12.50		24.25		37.37		51.50		51.50	2 / 7							
reaction time 0.168 interval			11.75		13.12		14.13			# of strides	12.50	11.75	13.12	14.13	24.25	27.25	3.00
velocity	8.00		8.51		7.62		7.08		7.77		8.00	8.51	7.62	7.08	8.25	7.34	
<b>Petržilková, Tereza (CZE) (19</b> time	12.83		24.86		37.87		51.94		51.94	9 / 8							
reaction time 0.192 interval			12.03		13.01		14.07			# of strides	12.83	12.03	13.01	14.07	24.86	27.08	2.22
velocity	7.79		8.31		7.69		7.11		7.70		7.79	8.31	7.69	7.11	8.05	7.39	

## Semi-Final 2

date 21-Aug-23

Seiko Timing (2023) - world championship race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Klaver, Lieke (NED) (1998)</b> time	12.15		23.52		36.16		49.87		49.87	6 / 1							
reaction time 0.177 interval			11.37		12.64		13.71			# of strides	12.15	11.37	12.64	13.71	23.52	26.35	2.83
velocity	8.23		8.80		7.91		7.29		8.02	182.2	8.23	8.80	7.91	7.29	8.50	7.59	
<b>Diggs, Talitha (USA) (2002)</b> time	12.29		23.97		36.72		50.86		50.86	9 / 2							
reaction time 0.174 interval			11.68		12.75		14.14			# of strides	12.29	11.68	12.75	14.14	23.97	26.89	2.92
velocity	8.14		8.56		7.84		7.07		7.86	200.5	8.14	8.56	7.84	7.07	8.34	7.44	
<b>Gómez, Roxana (CUB) (1999</b> time	12.68		24.33		36.91		51.07		51.07	7 / 3							
reaction time 0.227 interval			11.65		12.58		14.16			# of strides	12.68	11.65	12.58	14.16	24.33	26.74	2.41
velocity	7.89		8.58		7.95		7.06		7.83	193.0	7.89	8.58	7.95	7.06	8.22	7.48	
<b>Pipí, Ama (GBR) (1995)</b> time	12.42		23.89		36.80		51.17		51.17	5 / 4							

reaction time	0.173	interval		11.47	12.91	14.37		# of strides	12.42	11.47	12.91	14.37	23.89	27.28	3.39		
velocity	8.05		8.72	7.75	6.96	7.82		194.2	8.05	8.72	7.75	6.96	8.37	7.33			
<b>Pryce, Nickisha (JAM) (2001)</b>	time	12.10	23.39	36.25	51.24	51.24		8 / 5									
reaction time	0.186	interval	11.29	12.86	14.99			# of strides	12.10	11.29	12.86	14.99	23.39	27.85	4.46		
velocity	8.26		8.86	7.78	6.67	7.81		191.0	8.26	8.86	7.78	6.67	8.55	7.18			
<b>Scott, Gabby (PUR) (1997)</b>	time	12.48	24.19	37.36	51.52	51.52		4 / 6									
reaction time	0.177	interval	11.71	13.17	14.16			# of strides	12.48	11.71	13.17	14.16	24.19	27.33	3.14		
velocity	8.01		8.54	7.59	7.06	7.76		185.5	8.01	8.54	7.59	7.06	8.27	7.32			
<b>Mawsley, Sharlene (IRL) (1995)</b>	time	12.47	24.13	37.24	51.78	51.78		2 / 7									
reaction time	0.177	interval	11.66	13.11	14.54			# of strides	12.47	11.66	13.11	14.54	24.13	27.65	3.52		
velocity	8.02		8.58	7.63	6.88	7.72		185.5	8.02	8.58	7.63	6.88	8.29	7.23			
<b>Morauskaitė, Modesta Justė (LIT) (2000)</b>	time	12.42	24.13	37.21	52.15	52.15		3 / 8									
reaction time	0.160	interval	11.71	13.08	14.94			# of strides	12.42	11.71	13.08	14.94	24.13	28.02	3.89		
velocity	8.05		8.54	7.65	6.69	7.67		194.2	8.05	8.54	7.65	6.69	8.29	7.14			
<b>Semi-Final 1</b>	date	21-Aug-23	Seiko Timing (2023) - world championship race analysis														
	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Paulino, Marileidy (DOM) (1995)</b>	time	12.29	23.68	36.08	49.54	49.54		7 / 1									
reaction time	0.187	interval	11.39	12.40	13.46			# of strides	12.29	11.39	12.40	13.46	23.68	25.86	2.18		
velocity	8.14		8.78	8.06	7.43	8.07		171.0	8.14	8.78	8.06	7.43	8.45	7.73			
<b>Adeleke, Rhasidat (IRL) (2000)</b>	time	12.48	24.20	36.63	49.87	49.87		5 / 2									
reaction time	0.161	interval	11.72	12.43	13.24			# of strides	12.48	11.72	12.43	13.24	24.20	25.67	1.47		
velocity	8.01		8.53	8.05	7.55	8.02		185.5	8.01	8.53	8.05	7.55	8.26	7.79			
<b>Bolingo, Cynthia (BEL) (1999)</b>	time	12.23	23.71	36.46	49.96	49.96		8 / 3									
reaction time	0.184	interval	11.48	12.75	13.50	NR PB		# of strides	12.23	11.48	12.75	13.50	23.71	26.25	2.54		
velocity	8.18		8.71	7.84	7.41	8.01		191.0	8.18	8.71	7.84	7.41	8.44	7.62			
<b>McLeod, Candice (JAM) (1995)</b>	time	12.56	24.15	36.90	50.62	50.62		9 / 4									
reaction time	0.206	interval	11.59	12.75	13.72			# of strides	12.56	11.59	12.75	13.72	24.15	26.47	2.32		
velocity	7.96		8.63	7.84	7.29	7.90		201.0	7.96	8.63	7.84	7.29	8.28	7.56			
<b>Aguilar, Evelyn (COL) (1993)</b>	time	12.42	24.14	37.06	51.07	51.07		2 / 5									
reaction time	0.157	interval	11.72	12.92	14.01	PB		# of strides	12.42	11.72	12.92	14.01	24.14	26.93	2.79		
velocity	8.05		8.53	7.74	7.14	7.83		185.5	8.05	8.53	7.74	7.14	8.29	7.43			
<b>Morán, Paola (MEX) (1997)</b>	time	12.58	24.32	37.18	51.46	51.46		6 / 6									
reaction time	0.215	interval	11.74	12.86	14.28			# of strides	12.58	11.74	12.86	14.28	24.32	27.14	2.82		
velocity	7.95		8.52	7.78	7.00	7.77		190.0	7.95	8.52	7.78	7.00	8.22	7.37			
<b>Vondrová, Lada (CZE) (1999)</b>	time	12.39	24.02	37.07	51.50	51.50		3 / 7									
reaction time	0.196	interval	11.63	13.05	14.43			# of strides	12.39	11.63	13.05	14.43	24.02	27.48	3.46		
velocity	8.07		8.60	7.66	6.93	7.77		185.5	8.07	8.60	7.66	6.93	8.33	7.28			
<b>van Der Walt, Zenéy (RSA) (2000)</b>	time	12.61	24.39	37.42	51.54	51.54		4 / 8									
reaction time	0.202	interval	11.78	13.03	14.12			# of strides	12.61	11.78	13.03	14.12	24.39	27.15	2.76		
velocity	7.93		8.49	7.67	7.08	7.76		194.2	7.93	8.49	7.67	7.08	8.20	7.37			
<b>Heat 6</b>	date	20-Aug-23	Seiko Timing (2023) - world championship race analysis														
	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Paulino, Marileidy (DOM) (1995)</b>	time	12.37	23.82	36.16	49.90	49.90		5 / 1									
reaction time	0.207	interval	11.45	12.34	13.74			# of strides	12.37	11.45	12.34	13.74	23.82	26.08	2.26		
velocity	8.08		8.73	8.10	7.28	8.02		172.0	8.08	8.73	8.10	7.28	8.40	7.67			
<b>Ohuruogu, Victoria (GBR) (2008)</b>	time	12.46	24.10	36.76	50.60	50.60		2 / 2									
reaction time	0.181	interval	11.64	12.66	13.84			# of strides	12.46	11.64	12.66	13.84	24.10	26.50	2.40		
velocity	8.03		8.59	7.90	7.23	7.91		192.0	8.03	8.59	7.90	7.23	8.30	7.55			
<b>Diggs, Talitha (USA) (2002)</b>	time	12.34	24.20	37.04	50.87	50.87		9 / 3									
reaction time	0.175	interval	11.86	12.84	13.83			# of strides	12.34	11.86	12.84	13.83	24.20	26.67	2.47		
velocity	8.10		8.43	7.79	7.23	7.86		199.0	8.10	8.43	7.79	7.23	8.26	7.50			
<b>Vondrová, Lada (CZE) (1999)</b>	time	12.57	24.57	37.23	50.92	50.92		3 / 4									
reaction time	0.232	interval	12.00	12.66	13.69	PB		# of strides	12.57	12.00	12.66	13.69	24.57	26.35	1.78		
velocity	7.96		8.33	7.90	7.30	7.86		194.0	7.96	8.33	7.90	7.30	8.14	7.59			
<b>Morauskaitė, Modesta Justė (LIT) (2000)</b>	time	12.50	24.15	36.83	51.06	51.06		7 / 5									
reaction time	0.159	interval	11.65	12.68	14.23			# of strides	12.50	11.65	12.68	14.23	24.15	26.91	2.76		
velocity	8.00		8.58	7.89	7.03	7.83		194.2	8.00	8.58	7.89	7.03	8.28	7.43			
<b>Young, Charokee (JAM) (2000)</b>	time	12.49	24.11	36.87	51.24	51.24		8 / 6									
reaction time	0.222	interval	11.62	12.76	14.37			# of strides	12.49	11.62	12.76	14.37	24.11	27.13	3.02		
velocity	8.01		8.61	7.84	6.96	7.81		194.7	8.01	8.61	7.84	6.96	8.30	7.37			
<b>Marinho, Tiffani (BRA) (1995)</b>	time	12.78	25.09	38.39	53.12	53.12		6 / 7									
reaction time	0.184	interval	12.31	13.30	14.73			# of strides	12.78	12.31	13.30	14.73	25.09	28.03	2.94		
velocity	7.82		8.12	7.52	6.79	7.53		185.5	7.82	8.12	7.52	6.79	7.97	7.14			
<b>Viljoen, Marlie (RSA) (2000)</b>	time	12.70	24.99	38.40	53.73	53.73		4 / 8									
reaction time	0.189	interval	12.29	13.41	15.33			# of strides	12.70	12.29	13.41	15.33	24.99	28.74	3.75		
velocity	7.87		8.14	7.46	6.52	7.44		185.5	7.87	8.14	7.46	6.52	8.00	6.96			
<b>Heat 5</b>	date	20-Aug-23	Seiko Timing (2023) - world championship race analysis														

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Adeleke, Rhasidat (IRL) (200)</b> time reaction time 0.163 interval velocity	12.90								50.80	5 / 1							
		7.75							7.87	# of strides 185.5	12.90						
<b>Miklós, Andrea (ROU) (1999)</b> time reaction time 0.192 interval velocity	12.55								51.24	4 / 2							
		7.97							7.81	# of strides 199.7	12.55						
<b>Petržilková, Tereza (CZE) (19)</b> time reaction time 0.152 interval velocity	12.75								51.30	6 / 3							
		7.84							7.80	# of strides 195.0	12.75						
<b>Jæger, Henriette (NOR) (200)</b> time reaction time 0.164 interval velocity	12.80								51.33	8 / 4							
		7.81							7.79	# of strides 198.0	12.80						
<b>Abrams, Aliyah (GUY) (1997)</b> time reaction time 0.229 interval velocity	12.45								51.44	3 / 5							
		8.03							7.78	# of strides 202.5	12.45						
<b>Ponette, Helena (BEL) (2000)</b> time reaction time 0.212 interval velocity	12.68								51.52	9 / 6							
		7.89							7.76	# of strides PB	12.68						
<b>Baas, Mette (FIN) (2000)</b> time reaction time 0.135 interval velocity	12.87								52.74	7 / 7							
		7.77							7.58	# of strides	12.87						
<b>de Carvalho, Tabata (BRA) (</b> time reaction time 0.181 interval velocity	12.46								54.15	2 / 8							
		8.03							7.39	# of strides	12.46						

## Heat 4

date 20-Aug-23

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Pryce, Nickisha (JAM) (2001)</b> time reaction time 0.210 interval velocity	12.30		23.77		36.31		50.38		50.38	9 / 1							
		8.13	11.47	12.54	14.07		7.94		7.94	# of strides 187.5	12.30	11.47	12.54	14.07	23.77	26.61	2.84
			8.72	7.97	7.11		7.94		7.94	# of strides 187.5	8.13	8.72	7.97	7.11	8.41	7.52	
<b>Gómez, Roxana (CUB) (1999)</b> time reaction time 0.207 interval velocity	12.56		24.10		36.81		50.86		50.86	6 / 2							
		7.96	11.54	12.71	14.05		7.86		7.86	# of strides 190.2	12.56	11.54	12.71	14.05	24.10	26.76	2.66
			8.67	7.87	7.12		7.86		7.86	# of strides 190.2	7.96	8.67	7.87	7.12	8.30	7.47	
<b>Scott, Gabby (PUR) (1997)</b> time reaction time 0.171 interval velocity	12.40		24.18		37.15		51.07		51.07	7 / 3							
		8.06	11.78	12.97	13.92		7.83		7.83	# of strides 184.0	12.40	11.78	12.97	13.92	24.18	26.89	2.71
			8.49	7.71	7.18		7.83		7.83	# of strides 184.0	8.06	8.49	7.71	7.18	8.27	7.44	
<b>Weil, Martina (CHI) (1999)</b> time reaction time 0.159 interval velocity	12.50		24.30		37.42		51.35		51.35	3 / 4							
		8.00	11.80	13.12	13.93		7.79		7.79	# of strides 187.2	12.50	11.80	13.12	13.93	24.30	27.05	2.75
			8.47	7.62	7.18		7.79		7.79	# of strides 187.2	8.00	8.47	7.62	7.18	8.23	7.39	
<b>Konrad, Grace (CAN) (1999)</b> time reaction time 0.193 interval velocity	12.66		25.02		38.03		51.60		51.60	8 / 5							
		7.90	12.36	13.01	13.57		7.75		7.75	# of strides PB	12.66	12.36	13.01	13.57	25.02	26.58	1.56
			8.09	7.69	7.37		7.75		7.75	# of strides PB	7.90	8.09	7.69	7.37	7.99	7.52	
<b>Senn, Giulia (SUI) (2001)</b> time reaction time 0.157 interval velocity	12.60		24.72		37.95		52.66		52.66	5 / 6							
		7.94	12.12	13.23	14.71		7.60		7.60	# of strides	12.60	12.12	13.23	14.71	24.72	27.94	3.22
			8.25	7.56	6.80		7.60		7.60	# of strides	7.94	8.25	7.56	6.80	8.09	7.16	
<b>Rapai, Fanni (HUN) (2000)</b> time reaction time 0.177 interval velocity	12.92		25.02		38.38		52.73		52.73	2 / 7							
		7.74	12.10	13.36	14.35		7.59		7.59	# of strides PB	12.92	12.10	13.36	14.35	25.02	27.71	2.69
			8.26	7.49	6.97		7.59		7.59	# of strides PB	7.74	8.26	7.49	6.97	7.99	7.22	
<b>Wilson, Britton (USA) (2000)</b> time reaction time 0.190 interval velocity	12.74		24.37		37.54		53.87		53.87	4 / 8							
		7.85	11.63	13.17	16.33		7.43		7.43	# of strides	12.74	11.63	13.17	16.33	24.37	29.50	5.13
			8.60	7.59	6.12		7.43		7.43	# of strides	7.85	8.60	7.59	6.12	8.21	6.78	

## Heat 3

date 20-Aug-23

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Williams, Sada (BAR) (1997)</b> time reaction time 0.172 interval velocity	12.00		23.30		35.97		50.78		50.78	9 / 1							
		8.33	11.30	12.67	14.81		7.88		7.88	# of strides 189.5	12.00	11.30	12.67	14.81	23.30	27.48	4.18
			8.85	7.89	6.75		7.88		7.88	# of strides 189.5	8.33	8.85	7.89	6.75	8.58	7.28	
<b>Morán, Paola (MEX) (1997)</b> time reaction time 0.189 interval velocity	12.41		24.53		37.35		51.59		51.59	6 / 2							
		8.06	12.12	12.82	14.24		7.75		7.75	# of strides 188.0	12.41	12.12	12.82	14.24	24.53	27.06	2.53
			8.25	7.80	7.02		7.75		7.75	# of strides 188.0	8.06	8.25	7.80	7.02	8.15	7.39	
<b>van Der Walt, Zenéy (RSA) (</b> time reaction time 0.215 interval velocity	12.49		24.14		37.20		51.76		51.76	4 / 3							
		8.01	11.65	13.06	14.56		7.73		7.73	# of strides 184.2	12.49	11.65	13.06	14.56	24.14	27.62	3.48
			8.58	7.66	6.87		7.73		7.73	# of strides 184.2	8.01	8.58	7.66	6.87	8.29	7.24	
<b>Azevedo, Cátia (POR) (1994)</b> time reaction time 0.191 interval velocity	12.79		24.72		37.63		51.93		51.93	5 / 4							
		7.82	11.93	12.91	14.30		7.70		7.70	# of strides 193.7	12.79	11.93	12.91	14.30	24.72	27.21	2.49
			8.38	7.75	6.99		7.70		7.70	# of strides 193.7	7.82	8.38	7.75	6.99	8.09	7.35	
<b>Brossier, Amandine (FRA) (</b> time reaction time 0.183 interval velocity	12.81		24.76		37.56		51.98		51.98	7 / 5							
		7.81	11.95	12.80	14.42		7.70		7.70	# of strides 204.0	12.81	11.95	12.80	14.42	24.76	27.22	2.46
			8.37	7.81	6.93		7.70		7.70	# of strides 204.0	7.81	8.37	7.81	6.93	8.08	7.35	



<b>Uko, Imaobong Nse (NGR)</b> (time)	12.89	25.13	38.35	52.24	52.24	2 / 6												
reaction time	0.206	12.24	13.22	13.89	13.89	# of strides	12.89	12.24	13.22	13.89	25.13	27.11	1.98					
interval		7.76	8.17	7.56	7.20	192.0	7.76	8.17	7.56	7.20	7.96	7.38						
velocity																		
<b>Miller-Uibo, Shaunae (BAH)</b> (time)	12.65	24.80	37.70	52.65	52.65	8 / 7												
reaction time	0.151	12.15	12.90	14.95	14.95	# of strides	12.65	12.15	12.90	14.95	24.80	27.85	3.05					
interval		7.91	8.23	7.75	6.69	178.0	7.91	8.23	7.75	6.69	8.06	7.18						
velocity																		
<b>Elliott, Rosie (NZL) (1997)</b> (time)	13.23	25.63	38.80	52.88	52.88	3 / 8												
reaction time	0.167	12.40	13.17	14.08	14.08	# of strides	13.23	12.40	13.17	14.08	25.63	27.25	1.62					
interval		7.56	8.06	7.59	7.10	186.0	7.56	8.06	7.59	7.10	7.80	7.34						
velocity																		

## Heat 2

date 20-Aug-23

Seiko Timing (2023) - world championship race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
<b>Klaver, Lieke (NED) (1998)</b> (time)	12.20	23.76	36.71	50.52	50.52	6 / 1												
reaction time	0.203	11.56	12.95	13.81	13.81	# of strides	12.20	11.56	12.95	13.81	23.76	26.76	3.00					
interval		8.20	8.65	7.72	7.24	182.7	8.20	8.65	7.72	7.24	8.42	7.47						
velocity																		
<b>Pipi, Ama (GBR) (1995)</b> (time)	12.37	24.11	37.02	50.81	50.81	9 / 2												
reaction time	0.168	11.74	12.91	13.79	13.79	# of strides	12.37	11.74	12.91	13.79	24.11	26.70	2.59					
interval		8.08	8.52	7.75	7.25	192.0	8.08	8.52	7.75	7.25	8.30	7.49						
velocity																		
<b>Irby-Jackson, Lynna (USA) (time)</b>	12.06	23.83	36.57	50.81	50.81	7 / 3												
reaction time	0.187	11.77	12.74	14.24	14.24	# of strides	12.06	11.77	12.74	14.24	23.83	26.98	3.15					
interval		8.29	8.50	7.85	7.02	183.0	8.29	8.50	7.85	7.02	8.39	7.41						
velocity																		
<b>Gogl-Walli, Susanne (AUT) (time)</b>	12.48	24.27	37.18	51.00	51.00	4 / 4												
reaction time	0.173	11.79	12.91	13.82	13.82	# of strides	12.48	11.79	12.91	13.82	24.27	26.73	2.46					
interval		8.01	8.48	7.75	7.24	183.0	8.01	8.48	7.75	7.24	8.24	7.48						
velocity																		
<b>Aguilar, Evelyn (COL) (1993)</b> (time)	12.37	24.09	36.90	51.27	51.27	2 / 5												
reaction time	0.163	11.72	12.81	14.37	14.37	# of strides	12.37	11.72	12.81	14.37	24.09	27.18	3.09					
interval		8.08	8.53	7.81	6.96	183.0	8.08	8.53	7.81	6.96	8.30	7.36						
velocity																		
<b>Constantine, Kyra (CAN) (19time)</b>	12.61	24.70	37.81	52.28	52.28	8 / 6												
reaction time	0.171	12.09	13.11	14.47	14.47	# of strides	12.61	12.09	13.11	14.47	24.70	27.58	2.88					
interval		7.93	8.27	7.63	6.91	183.0	7.93	8.27	7.63	6.91	8.10	7.25						
velocity																		
<b>Caicedo, Nicole (ECU) (2000)</b> (time)	12.08	23.89	36.97	52.82	52.82	3 / 7												
reaction time	0.227	11.81	13.08	15.85	15.85	# of strides	12.08	11.81	13.08	15.85	23.89	28.93	5.04					
interval		8.28	8.47	7.65	6.31	183.0	8.28	8.47	7.65	6.31	8.37	6.91						
velocity																		
<b>Richard, Janet (MLT) (1998)</b> (time)	12.97	25.51	39.24	54.50	54.50	5 / 8												
reaction time	0.172	12.54	13.73	15.26	15.26	# of strides	12.97	12.54	13.73	15.26	25.51	28.99	3.48					
interval		7.71	7.97	7.28	6.55	183.0	7.71	7.97	7.28	6.55	7.84	6.90						
velocity																		

## Heat 1

date 20-Aug-23

Seiko Timing (2023) - world championship race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
<b>Kaczmarek, Natalia (POL) (19time)</b>	12.39	23.74	36.65	50.02	50.02	7 / 1												
reaction time	0.179	11.35	12.91	13.37	13.37	# of strides	12.39	11.35	12.91	13.37	23.74	26.28	2.54					
interval		8.07	8.81	7.75	7.48	190.2	8.07	8.81	7.75	7.48	8.42	7.61						
velocity																		
<b>Bolingo, Cynthia (BEL) (199time)</b>	12.45	24.08	36.84	50.29	50.29	2 / 2												
reaction time	0.187	11.63	12.76	13.45	13.45	# of strides	12.45	11.63	12.76	13.45	24.08	26.21	2.13					
interval		8.03	8.60	7.84	7.43	192.0	8.03	8.60	7.84	7.43	8.31	7.63						
velocity																		
<b>McLeod, Candice (JAM) (19time)</b>	12.46	24.01	36.60	50.37	50.37	4 / 3												
reaction time	0.190	11.55	12.59	13.77	13.77	# of strides	12.46	11.55	12.59	13.77	24.01	26.36	2.35					
interval		8.03	8.66	7.94	7.26	198.0	8.03	8.66	7.94	7.26	8.33	7.59						
velocity																		
<b>Mawdsley, Sharlene (IRL) (19time)</b>	12.41	23.90	36.83	51.17	51.17	5 / 4												
reaction time	0.169	11.49	12.93	14.34	14.34	# of strides	12.41	11.49	12.93	14.34	23.90	27.27	3.37					
interval		8.06	8.70	7.73	6.97	195.5	8.06	8.70	7.73	6.97	8.37	7.33						
velocity																		
<b>Vaičule, Gunta (LAT) (1995)</b> (time)	12.69	24.29	37.06	51.36	51.36	6 / 5												
reaction time	0.192	11.60	12.77	14.30	14.30	# of strides	12.69	11.60	12.77	14.30	24.29	27.07	2.78					
interval		7.88	8.62	7.83	6.99	196.0	7.88	8.62	7.83	6.99	8.23	7.39						
velocity																		
<b>Mangione, Alice (ITA) (1997)</b> (time)	12.62	24.51	37.62	51.57	51.57	8 / 6												
reaction time	0.189	11.89	13.11	13.95	13.95	# of strides	12.62	11.89	13.11	13.95	24.51	27.06	2.55					
interval		7.92	8.41	7.63	7.17	191.0	7.92	8.41	7.63	7.17	8.16	7.39						
velocity																		
<b>Coetzee, Miranda (RSA) (19time)</b>	12.34	24.06	37.01	52.30	52.30	3 / 7												
reaction time	0.184	11.72	12.95	15.29	15.29	# of strides	12.34	11.72	12.95	15.29	24.06	28.24	4.18					
interval		8.10	8.53	7.72	6.54	196.0	8.10	8.53	7.72	6.54	8.31	7.08						
velocity																		
<b>Karpiuk, Kateryna (UKR) (19time)</b>	12.76	24.71	37.98	52.66	52.66	9 / 8												
reaction time	0.198	11.95	13.27	14.68	14.68	# of strides	12.76	11.95	13.27	14.68	24.71	27.95	3.24					
interval		7.84	8.37	7.54	6.81	196.0	7.84	8.37	7.54	6.81	8.09	7.16						
velocity																		

## 2023 Japanese National High School Championships (Sapporo, JPN)

## FINAL

<b>Akasaka, Miyu (JPN)</b>	time	13.46	27.03	40.24	54.28	54.28	5 / 2										
	reaction time	0.291	interval	13.57	13.21	14.04		# of strides	13.46	13.57	13.21	14.04	27.03	27.25	0.22		
	velocity	7.43	7.37	7.57	7.12	7.37			7.43	7.37	7.57	7.12	7.40	7.34			
<b>Seta, Hina (JPN)</b>	time	13.90	27.29	40.86	54.79	54.79	4 / 3										
	reaction time	0.257	interval	13.39	13.57	13.93		# of strides	13.90	13.39	13.57	13.93	27.29	27.50	0.21		
	velocity	7.19	7.47	7.37	7.18	7.30			7.19	7.47	7.37	7.18	7.33	7.27			
<b>Yuhara, Mizuki (JPN)</b>	time	13.85	27.21	40.69	55.26	55.26	3 / 4										
	reaction time	0.213	interval	13.36	13.48	14.57		# of strides	13.85	13.36	13.48	14.57	27.21	28.05	0.84		
	velocity	7.22	7.49	7.42	6.86	7.24			7.22	7.49	7.42	6.86	7.35	7.13			
<b>Itani, Hina (JPN)</b>	time	13.30	26.49	40.59	55.37	55.37	6 / 5										
	reaction time	0.241	interval	13.19	14.10	14.78		# of strides	13.30	13.19	14.10	14.78	26.49	28.88	2.39		
	velocity	7.52	7.58	7.09	6.77	7.22			7.52	7.58	7.09	6.77	7.55	6.93			
<b>Koyama, Nagisa (JPN)</b>	time	13.23	26.59	40.91	55.88	55.88	9 / 6										
	reaction time	0.232	interval	13.36	14.32	14.97		# of strides	13.23	13.36	14.32	14.97	26.59	29.29	2.70		
	velocity	7.56	7.49	6.98	6.68	7.16			7.56	7.49	6.98	6.68	7.52	6.83			
<b>Yuicai, Isokai (JPN)</b>	time	13.30	26.84	41.14	55.94	55.94	8 / 7										
	reaction time	0.262	interval	13.54	14.30	14.80		# of strides	13.30	13.54	14.30	14.80	26.84	29.10	2.26		
	velocity	7.52	7.39	6.99	6.76	7.15			7.52	7.39	6.99	6.76	7.45	6.87			
<b>Williams, Shamayamian (JPN)</b>	time	13.46	26.88	40.92	55.99	55.99	2 / 8										
	reaction time	0.272	interval	13.42	14.04	15.07		# of strides	13.46	13.42	14.04	15.07	26.88	29.11	2.23		
	velocity	7.43	7.45	7.12	6.64	7.14			7.43	7.45	7.12	6.64	7.44	6.87			

**2023 Chinese National Championships (Quzhou, CHN)****FINAL**

date 23-Jul-23

Shandong Athletics Sport Science (2023)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Hao Miao (CHN) (2002)</b>	time	13.00	26.01	39.81	46.79	54.07	54.07	6 / 1										
	reaction time	0.338	interval	13.01	13.80	6.98	7.28		# of strides	13.00	13.01	13.80	14.26	26.01	28.06	2.05		
	velocity	7.69	7.69	7.25	7.16	6.87	7.40			196.0	7.69	7.69	7.25	7.01	7.69	7.13		
<b>Kong Yingying (CHN) (2003)</b>	time	13.21	25.96	39.47	46.64	54.39	54.39	4 / 2										
	reaction time	0.285	interval	12.75	13.51	7.17	7.75	<b>PB</b>	# of strides	13.21	12.75	13.51	14.92	25.96	28.43	2.47		
	velocity	7.57	7.84	7.40	6.97	6.45	7.35			198.0	7.57	7.84	7.40	6.70	7.70	7.03		
<b>Zhang Jialin (CHN) (2001)</b>	time	13.36	26.26	40.01	47.16	54.62	54.62	5 / 3										
	reaction time	0.301	interval	12.90	13.75	7.15	7.46		# of strides	13.36	12.90	13.75	14.61	26.26	28.36	2.10		
	velocity	7.49	7.75	7.27	6.99	6.70	7.32			197.0	7.49	7.75	7.27	6.84	7.62	7.05		
<b>Zhou Li (CHN) (2003)</b>	time	13.21	25.64	39.24	46.73	54.65	54.65	2 / 4										
	reaction time	0.260	interval	12.43	13.60	7.49	7.92		# of strides	13.21	12.43	13.60	15.41	25.64	29.01	3.37		
	velocity	7.57	8.05	7.35	6.68	6.31	7.32			210.0	7.57	8.05	7.35	6.49	7.80	6.89		
<b>Liang Nuo (CHN) (1999)</b>	time	13.18	26.19	39.99	47.26	55.12	55.12	7 / 5										
	reaction time	0.282	interval	13.01	13.80	7.27	7.86		# of strides	13.18	13.01	13.80	15.13	26.19	28.93	2.74		
	velocity	7.59	7.69	7.25	6.88	6.36	7.26			204.7	7.59	7.69	7.25	6.61	7.64	6.91		
<b>Huang Shiyao (CHN) (2002)</b>	time	13.70	27.01	40.77	47.86	55.36	55.36	8 / 6										
	reaction time	0.226	interval	13.31	13.76	7.09	7.50		# of strides	13.70	13.31	13.76	14.59	27.01	28.35	1.34		
	velocity	7.30	7.51	7.27	7.05	6.67	7.23			201.0	7.30	7.51	7.27	6.85	7.40	7.05		
<b>Yang Qi (CHN) (2000)</b>	time	13.33	26.86	40.91	48.04	55.37	55.37	1 / 7										
	reaction time	0.231	interval	13.53	14.05	7.13	7.33		# of strides	13.33	13.53	14.05	14.46	26.86	28.51	1.65		
	velocity	7.50	7.39	7.12	7.01	6.82	7.22			199.0	7.50	7.39	7.12	6.92	7.45	7.02		
<b>Wang Jiuxiang (CHN) (2001)</b>	time	13.29	26.16	40.31	47.73	55.60	55.60	3 / 8										
	reaction time	0.253	interval	12.87	14.15	7.42	7.87		# of strides	13.29	12.87	14.15	15.29	26.16	29.44	3.28		
	velocity	7.52	7.77	7.07	6.74	6.35	7.19			214.7	7.52	7.77	7.07	6.54	7.65	6.79		

**2023 Herculis Meeting International d'Athlétisme (Monaco, MON)****FINAL**

date 21-Jul-23

Omega Timing (2023) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
<b>Kaczmarek, Natalia (POL) (1987)</b>	time	6.79	12.36	17.98	23.83	29.92	36.33	42.84	49.63	49.63	6 / 1								
	reaction time	0.174	interval	5.57	5.85	6.09	6.41	6.51	6.79		# of strides	12.36	11.47	12.50	13.30	23.83	25.80	1.97	
	velocity	7.36	8.98	8.90	8.55	8.21	7.80	7.68	7.36	8.06			8.09	8.72	8.00	7.52	8.39	7.75	
<b>Little, Shamier (USA) (1995)</b>	time	6.68	12.07	17.57	23.32	29.43	35.75	42.40	49.68	49.68	8 / 2								
	reaction time	0.259	interval	5.39	5.50	5.75	6.11	6.32	6.65	7.28	<b>PB</b>	# of strides	12.07	11.25	12.43	13.93	23.32	26.36	3.04
	velocity	7.49	9.28	9.09	8.70	8.18	7.91	7.52	6.87	8.05			8.29	8.89	8.05	7.18	8.58	7.59	
<b>Klaver, Lieke (NED) (1998)</b>	time	6.67	12.02	17.56	23.34	29.49	36.01	42.78	49.99	49.99	4 / 3								
	reaction time	0.247	interval	5.35	5.54	5.78	6.15	6.52	6.77	7.21		# of strides	12.02	11.32	12.67	13.98	23.34	26.65	3.31
	velocity	7.50	9.35	9.03	8.65	8.13	7.67	7.39	6.93	8.00			184.5	8.32	8.83	7.89	7.15	8.57	7.50
<b>Adeleke, Rhasidat (IRL) (200)</b>	time	6.74	12.23	17.79	23.58	29.60	35.90	42.55	49.99	49.99	5 / 4								
	reaction time	0.144	interval	5.49	5.56	5.79	6.02	6.30	6.65	7.44		# of strides	12.23	11.35	12.32	14.09	23.58	26.41	2.83
	velocity	7.42	9.11	8.99	8.64	8.31	7.94	7.52	6.72	8.00			184.7	8.18	8.81	8.12	7.10	8.48	7.57
<b>Williams, Sada (BAR) (1997)</b>	time	6.52	11.89	17.41	23.18	29.26	35.70	42.53	50.00	50.00	7 / 5								
	reaction time	0.185	interval	5.37	5.52	5.77	6.08	6.44	6.83	7.47		# of strides	11.89	11.29	12.52	14.30	23.18	26.82	3.64
	velocity	7.67	9.31	9.06	8.67	8.22	7.76	7.32	6.69	8.00			8.41	8.86	7.99	6.99	8.63	7.46	
<b>Moraa, Mary (KEN) (2000)</b>	time	7.04	12.73	18.58	24.63	30.83	37.21	43.71	50.48	50.48	3 / 6								
	reaction time	0.180	interval	5.69	5.85	6.05	6.20	6.38	6.50	6.77		# of strides	12.73	11.90	12.58	13.27	24.63	25.85	1.22
	velocity																		

velocity	7.10	8.79	8.55	8.26	8.06	7.84	7.69	7.39	7.92		7.86	8.40	7.95	7.54	8.12	7.74	
<b>van der Walt, Zenéy (RSA) (2</b>	6.84	12.53	18.39	24.36	30.60	37.19	43.98	51.20	51.20	1 / 7							
reaction time 0.178	interval	5.69	5.86	5.97	6.24	6.59	6.79	7.22		# of strides	12.53	11.83	12.83	14.01	24.36	26.84	2.48
velocity	7.31	8.79	8.53	8.38	8.01	7.59	7.36	6.93	7.81		7.98	8.45	7.79	7.14	8.21	7.45	
<b>Kielbasinska, Anna (POL) (1</b>	6.82	12.60	18.56	24.70	31.05	37.79	44.83	52.67	52.67	2 / 8							
reaction time 0.189	interval	5.78	5.96	6.14	6.35	6.74	7.04	7.84		# of strides	12.60	12.10	13.09	14.88	24.70	27.97	3.27
velocity	7.33	8.65	8.39	8.14	7.87	7.42	7.10	6.38	7.59		7.94	8.26	7.64	6.72	8.10	7.15	

**2023 Athletissima (Lausanne, SUI)****B Race**

date 30-Jun-23

Omega Timing (2023) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Pellaud, Rachel (SUI) (1995)</b>	time	7.12	12.99	19.11	25.53	32.06	38.78	45.66	53.11	53.11	4 / 1						
reaction time 0.173	interval	5.87	6.12	6.42	6.53	6.72	6.88	7.45		# of strides	12.99	12.54	13.25	14.33	25.53	27.58	2.05
velocity	7.02	8.52	8.17	7.79	7.66	7.44	7.27	6.71	7.53		7.70	7.97	7.55	6.98	7.83	7.25	
<b>Salamin, Noémie (SUI) (1999)</b>	time	7.02	12.81	18.92	25.27	31.80	38.60	45.76	53.46	53.46	5 / 2						
reaction time 0.215	interval	5.79	6.11	6.35	6.53	6.80	7.16	7.70		# of strides	12.81	12.46	13.33	14.86	25.27	28.19	2.92
velocity	7.12	8.64	8.18	7.87	7.66	7.35	6.98	6.49	7.48		7.81	8.03	7.50	6.73	7.91	7.09	
<b>Gubelmann, Catia (SUI) (200)</b>	time	6.83	12.55	18.51	24.84	31.46	38.56	45.87	53.61	53.61	6 / 3						
reaction time 0.120	interval	5.72	5.96	6.33	6.62	7.10	7.31	7.74	<b>PB</b>	# of strides	12.55	12.29	13.72	15.05	24.84	28.77	3.93
velocity	7.32	8.74	8.39	7.90	7.55	7.04	6.84	6.46	7.46		7.97	8.14	7.29	6.64	8.05	6.95	
<b>Disch, Karin (SUI) (1997)</b>	time	7.10	13.19	19.56	26.16	32.88	39.92	47.08	54.50	54.50	8 / 4						
reaction time 0.216	interval	6.09	6.37	6.60	6.72	7.04	7.16	7.42	<b>PB</b>	# of strides	13.19	12.97	13.76	14.58	26.16	28.34	2.18
velocity	7.04	8.21	7.85	7.58	7.44	7.10	6.98	6.74	7.34		7.58	7.71	7.27	6.86	7.65	7.06	
<b>King, Sarah (SUI) (1996)</b>	time	7.14	13.02	19.10	25.56	32.24	39.35	46.68	54.50	54.50	7 / 5						
reaction time 0.245	interval	5.88	6.08	6.46	6.68	7.11	7.33	7.82		# of strides	13.02	12.54	13.79	15.15	25.56	28.94	3.38
velocity	7.00	8.50	8.22	7.74	7.49	7.03	6.82	6.39	7.34		7.68	7.97	7.25	6.60	7.82	6.91	
<b>Liem, Michelle (SUI) (2005)</b>	time	7.05	12.78	18.76	25.09	31.78	38.90	46.48	54.58	54.58	3 / 6						
reaction time 0.166	interval	5.73	5.98	6.33	6.69	7.12	7.58	8.10		# of strides	12.78	12.31	13.81	15.68	25.09	29.49	4.40
velocity	7.09	8.73	8.36	7.90	7.47	7.02	6.60	6.17	7.33		7.82	8.12	7.24	6.38	7.97	6.78	
<b>Lerf, Seraina (SUI) (2002)</b>	time	7.31	13.53	20.05	26.74	33.42	40.35	47.58	55.43	55.43	1 / 7						
reaction time 0.163	interval	6.22	6.52	6.69	6.68	6.93	7.23	7.85		# of strides	13.53	13.21	13.61	15.08	26.74	28.69	1.95
velocity	6.84	8.04	7.67	7.47	7.49	7.22	6.92	6.37	7.22		7.39	7.57	7.35	6.63	7.48	6.97	
<b>Martin, Sophie (SUI) (2000)</b>	time	7.04	12.92	19.09	25.61	32.46	39.80	47.66	56.25	56.25	2 / 8						
reaction time 0.164	interval	5.88	6.17	6.52	6.85	7.34	7.86	8.59		# of strides	12.92	12.69	14.19	16.45	25.61	30.64	5.03
velocity	7.10	8.50	8.10	7.67	7.30	6.81	6.36	5.82	7.11		7.74	7.88	7.05	6.08	7.81	6.53	

**2023 Bislett Games (Oslo, NOR)****National FINAL**

date 15-Jun-23

Omega Timing (2023) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Al-Saidi, Line (NOR) (2006)</b>	time	6.96	12.85	18.89	25.07	31.61	38.52	45.63	53.28	53.28	4 / 1						
reaction time 0.142	interval	5.89	6.04	6.18	6.54	6.91	7.11	7.65	<b>PB</b>	# of strides	12.85	12.22	13.45	14.76	25.07	28.21	3.14
velocity	7.18	8.49	8.28	8.09	7.65	7.24	7.03	6.54	7.51		7.78	8.18	7.43	6.78	7.98	7.09	
<b>Kendall, Nicole (GBR) (1996)</b>	time	6.91	12.64	18.61	24.84	31.47	38.48	45.71	53.50	53.50	5 / 2						
reaction time 0.192	interval	5.73	5.97	6.23	6.63	7.01	7.23	7.79		# of strides	12.64	12.20	13.64	15.02	24.84	28.66	3.82
velocity	7.24	8.73	8.38	8.03	7.54	7.13	6.92	6.42	7.48		7.91	8.20	7.33	6.66	8.05	6.98	
<b>Slettum, Elisabeth (NOR) (1</b>	time	6.93	12.83	18.95	25.37	32.06	39.01	46.16	53.60	53.60	6 / 3						
reaction time 0.185	interval	5.90	6.12	6.42	6.69	6.95	7.15	7.44		# of strides	12.83	12.54	13.64	14.59	25.37	28.23	2.86
velocity	7.22	8.47	8.17	7.79	7.47	7.19	6.99	6.72	7.46		7.79	7.97	7.33	6.85	7.88	7.08	
<b>Gautadottir, Marin Stray (N</b>	time	7.14	13.11	19.47	26.06	32.72	39.80	47.33	55.22	55.22	8 / 4						
reaction time 0.177	interval	5.97	6.36	6.59	6.66	7.08	7.53	7.89	<b>PB</b>	# of strides	13.11	12.95	13.74	15.42	26.06	29.16	3.10
velocity	7.00	8.38	7.86	7.59	7.51	7.06	6.64	6.34	7.24		7.63	7.72	7.28	6.49	7.67	6.86	
<b>Amlie, Sigrid Kongssund (N</b>	time	7.37	13.71	20.23	26.74	33.47	40.51	47.70	55.34	55.34	2 / 5						
reaction time 0.186	interval	6.34	6.52	6.51	6.73	7.04	7.19	7.64		# of strides	13.71	13.03	13.77	14.83	26.74	28.60	1.86
velocity	6.78	7.89	7.67	7.68	7.43	7.10	6.95	6.54	7.23		7.29	7.67	7.26	6.74	7.48	6.99	
<b>Krab Scheibelein, Anna (DE</b>	time	7.21	13.40	19.83	26.38	33.21	40.39	47.98	56.21	56.21	7 / 6						
reaction time 0.173	interval	6.19	6.43	6.55	6.83	7.18	7.59	8.23	<b>PB</b>	# of strides	13.40	12.98	14.01	15.82	26.38	29.83	3.45
velocity	6.93	8.08	7.78	7.63	7.32	6.96	6.59	6.08	7.12		7.46	7.70	7.14	6.32	7.58	6.70	
<b>Haugen, Nora (NOR) (2003)</b>	time	7.52	13.90	20.65	27.51	34.41	41.43	48.67	56.54	56.54	1 / 7						
reaction time 0.178	interval	6.38	6.75	6.86	6.90	7.02	7.24	7.87		# of strides	13.90	13.61	13.92	15.11	27.51	29.03	1.52
velocity	6.65	7.84	7.41	7.29	7.25	7.12	6.91	6.35	7.07		7.19	7.35	7.18	6.62	7.27	6.89	

**2023 Meeting de Paris (Paris, FRA)****FINAL**

date 09-Jun-23

Omega Timing (2023) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Paulino, Marileidy (DOM) (19</b>	time	6.62	12.13	17.69	23.43	29.30	35.40	41.85	49.12	49.12	5 / 1						
reaction time 0.189	interval	5.51	5.56	5.74	5.87	6.10	6.45	7.27		# of strides	12.13	11.30	11.97	13.72	23.43	25.69	2.26
velocity	7.55	9.07	8.99	8.71	8.52	8.20	7.75	6.88	8.14		171.0	8.24	8.85	8.35	7.29	8.54	7.79
<b>McLaughlin-Levrone, Sydne</b>	time	6.30	11.59	17.02	22.66	28.59	34.94	41.88	49.71	49.71	4 / 2						
reaction time 0.155	interval	5.29	5.43	5.64	5.93	6.35	6.94	7.83	<b>PB</b>	# of strides	11.59	11.07	12.28	14.77	22.66	27.05	4.39
velocity	7.94	9.45	9.21	8.87	8.43	7.87	7.20	6.39	8.05		185.7	8.63	9.03	8.14	6.77	8.83	7.39



<b>Naser, Salwa Eid (BRN) (199)</b>	time	6.52	11.81	17.30	23.15	29.37	35.97	42.75	49.95	49.95	3 / 3								
	reaction time	0.143	interval	5.29	5.49	5.85	6.22	6.60	6.78	7.20	# of strides	11.81	11.34	12.82	13.98	23.15	26.80	3.65	
	velocity	7.67	9.45	9.11	8.55	8.04	7.58	7.37	6.94	8.01	186.2	8.47	8.82	7.80	7.15	8.64	7.46		
<b>Kaczmarek, Natalia (POL) (19)</b>	time	6.54	12.03	17.62	23.48	29.69	36.19	42.87	50.10	50.10	6 / 4								
	reaction time	0.160	interval	5.49	5.59	5.86	6.21	6.50	6.68	7.23	# of strides	12.03	11.45	12.71	13.91	23.48	26.62	3.14	
	velocity	7.65	9.11	8.94	8.53	8.05	7.69	7.49	6.92	7.98	191.7	8.31	8.73	7.87	7.19	8.52	7.51		
<b>Klaver, Lieke (NED) (1998)</b>	time	6.46	11.84	17.45	23.38	29.64	36.17	42.89	50.32	50.32	7 / 5								
	reaction time	0.132	interval	5.38	5.61	5.93	6.26	6.53	6.72	7.43	# of strides	11.84	11.54	12.79	14.15	23.38	26.94	3.56	
	velocity	7.74	9.29	8.91	8.43	7.99	7.66	7.44	6.73	7.95	183.7	8.45	8.67	7.82	7.07	8.55	7.42		
<b>McLeod, Candice (JAM) (19)</b>	time	6.76	12.40	18.19	24.18	30.40	36.82	43.49	50.80	50.80	2 / 6								
	reaction time	0.173	interval	5.64	5.79	5.99	6.22	6.42	6.67	7.31	# of strides	12.40	11.78	12.64	13.98	24.18	26.62	2.44	
	velocity	7.40	8.87	8.64	8.35	8.04	7.79	7.50	6.84	7.87	80.6	8.49	7.91	7.15	8.27	7.51			
<b>Hall, Anna (USA) (2001)</b>	time	6.54	12.02	17.76	23.72	29.89	36.45	43.35	50.82	50.82	8 / 7								
	reaction time	0.179	interval	5.48	5.74	5.96	6.17	6.56	6.90	7.47	# of strides	12.02	11.70	12.73	14.37	23.72	27.10	3.38	
	velocity	7.65	9.12	8.71	8.39	8.10	7.62	7.25	6.69	7.87	182.0	8.32	8.55	7.86	6.96	8.43	7.38		
<b>Pipi, Ama (GER) (1995)</b>	time	6.65	12.13	17.92	24.00	30.50	37.22	44.13	51.76	51.76	1 / 8								
	reaction time	0.153	interval	5.48	5.79	6.08	6.50	6.72	6.91	7.63	# of strides	12.13	11.87	13.22	14.54	24.00	27.76	3.76	
	velocity	7.52	9.12	8.64	8.22	7.69	7.44	7.24	6.55	7.73	82.4	8.42	7.56	6.88	8.33	7.20			

## 2023 FBK Games (Hengelo, NED)

## FINAL

date 04-Jun-23

Omega Timing (2023) - continental tour race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Bo, Femke (NED) (2000)</b>	time	6.70	12.30	18.09	24.11	30.39	36.82	43.39	50.11	50.11	4 / 1							
	reaction time	0.167	interval	5.60	5.79	6.02	6.28	6.43	6.57	6.72	# of strides	12.30	11.81	12.71	13.29	24.11	26.00	1.89
	velocity	7.46	8.93	8.64	8.31	7.96	7.78	7.61	7.44	7.98	182.5	8.13	8.47	7.87	7.52	8.30	7.69	
<b>Jonathas, Wadeline (USA) (1)</b>	time	6.68	12.36	18.32	24.49	30.88	37.50	44.39	51.74	51.74	6 / 2							
	reaction time	0.178	interval	5.68	5.96	6.17	6.39	6.62	6.89	7.35	# of strides	12.36	12.13	13.01	14.24	24.49	27.25	2.76
	velocity	7.49	8.80	8.39	8.10	7.82	7.55	7.26	6.80	7.73	179.0	8.09	8.24	7.69	7.02	8.17	7.34	
<b>Müller, Laura (GER) (1995)</b>	time	6.81	12.37	18.10	24.14	30.52	37.22	44.37	52.08	52.08	8 / 3							
	reaction time	0.235	interval	5.56	5.73	6.04	6.38	6.70	7.15	7.71	# of strides	12.37	11.77	13.08	14.86	24.14	27.94	3.80
	velocity	7.34	8.99	8.73	8.28	7.84	7.46	6.99	6.49	7.68	80.8	8.50	7.65	6.73	8.29	7.16		
<b>Mawdsley, Sharlene (IRL) (19)</b>	time	6.74	12.40	18.36	24.54	30.91	37.62	44.66	52.14	52.14	5 / 4							
	reaction time	0.143	interval	5.66	5.96	6.18	6.37	6.71	7.04	7.48	# of strides	12.40	12.14	13.08	14.52	24.54	27.60	3.06
	velocity	7.42	8.83	8.39	8.09	7.85	7.45	7.10	6.68	7.67	192.5	8.06	8.24	7.65	6.89	8.15	7.25	
<b>Saalberg, Eveline (NED) (199)</b>	time	6.84	12.45	18.33	24.47	30.98	37.75	44.84	52.57	52.57	3 / 5							
	reaction time	0.234	interval	5.61	5.88	6.14	6.51	6.77	7.09	7.73	# of strides	12.45	12.02	13.28	14.82	24.47	28.10	3.63
	velocity	7.31	8.91	8.50	8.14	7.68	7.39	7.05	6.47	7.61	80.3	8.32	7.53	6.75	8.17	7.12		
<b>de Witte, Lisanne (NED) (19)</b>	time	7.21	13.13	19.22	25.53	32.03	38.78	45.70	53.10	53.10	1 / 6							
	reaction time	0.244	interval	5.92	6.09	6.31	6.50	6.75	6.92	7.40	# of strides	13.13	12.40	13.25	14.32	25.53	27.57	2.04
	velocity	6.93	8.45	8.21	7.92	7.69	7.41	7.23	6.76	7.53	76.2	8.06	7.55	6.98	7.83	7.25		
<b>Brossier, Amandine (FRA) (1)</b>	time	6.93	12.59	18.53	24.78	31.30	38.23	45.63	53.65	53.65	2 / 7							
	reaction time	0.171	interval	5.66	5.94	6.25	6.52	6.93	7.40	8.02	# of strides	12.59	12.19	13.45	15.42	24.78	28.87	4.09
	velocity	7.22	8.83	8.42	8.00	7.67	7.22	6.76	6.23	7.46	79.4	8.20	7.43	6.49	8.07	6.93		
<b>Nekhubui, Shirley (RSA) (20)</b>	time	6.95	12.75	18.88	25.30	31.94	38.90	46.39	54.64	54.64	7 / 8							
	reaction time	0.189	interval	5.80	6.13	6.42	6.64	6.96	7.49	8.25	# of strides	12.75	12.55	13.60	15.74	25.30	29.34	4.04
	velocity	7.19	8.62	8.16	7.79	7.53	7.18	6.68	6.06	7.32	78.4	7.97	7.35	6.35	7.91	6.82		

## 2023 Golden Gala Pietro Mennea (Firenze, ITA)

## FINAL

date 02-Jun-23

Omega Timing (2023) - diamond league race analysis

<b>Kaczmarek, Natalia (POL) (19)</b>	time	6.74	12.33	19.97	23.93	30.12	36.60	43.35	50.41	50.41	4 / 1							
	reaction time	0.142	interval	5.59	5.74	5.96	6.19	6.48	6.75	7.06	# of strides	12.33	11.60	12.67	13.81	23.93	26.48	2.55
	velocity	7.42	8.94	8.54	8.23	7.92	7.61	7.30	6.98	7.93	194.0	8.11	8.62	7.89	7.24	8.36	7.55	
<b>Klaver, Lieke (NED) (1998)</b>	time	6.62	12.16	17.90	23.92	30.20	36.73	43.52	50.75	50.75	6 / 2							
	reaction time	0.137	interval	5.54	5.74	6.02	6.28	6.53	6.79	7.23	# of strides	12.16	11.76	12.81	14.02	23.92	26.83	2.91
	velocity	7.55	9.03	8.71	8.31	7.96	7.66	7.36	6.92	7.88	82.2	8.50	7.81	7.13	8.36	7.45		
<b>Irby-Jackson, Lynna (USA) (1)</b>	time	6.66	12.28	18.26	24.43	30.55	36.85	43.54	50.84	50.84	8 / 3							
	reaction time	0.183	interval	5.62	5.98	6.17	6.12	6.30	6.69	7.30	# of strides	12.28	12.15	12.42	13.99	24.43	26.41	1.98
	velocity	7.51	8.90	8.36	8.10	8.17	7.94	7.47	6.85	7.87	81.4	8.23	8.05	7.15	8.19	7.57		
<b>Gómez, Roxana (CUB) (1999)</b>	time	7.01	12.64	18.44	24.44	30.63	37.08	43.93	51.29	51.29	2 / 4							
	reaction time	0.193	interval	5.63	5.80	6.00	6.19	6.45	6.85	7.36	# of strides	12.64	11.80	12.64	14.21	24.44	26.85	2.41
	velocity	7.13	8.88	8.62	8.33	8.08	7.75	7.30	6.79	7.80	79.1	8.47	7.91	7.04	8.18	7.45		
<b>Abrams, Aliyah (GUY) (1997)</b>	time	6.67	12.22	18.00	23.99	30.22	36.76	43.72	51.31	51.31	7 / 5							
	reaction time	0.134	interval	5.55	5.78	5.99	6.23	6.54	6.96	7.59	# of strides	12.22	11.77	12.77	14.55	23.99	27.32	3.33
	velocity	7.50	9.01	8.65	8.35	8.03	7.65	7.18	6.59	7.80	81.8	8.50	7.83	6.87	8.34	7.32		
<b>Kielbasinska, Anna (POL) (19)</b>	time	6.65	12.37	18.24	24.46	30.79	37.43	44.39	51.76	51.76	3 / 6							
	reaction time	0.157	interval	5.72	5.87	6.22	6.33	6.64	6.96	7.37	# of strides	12.37	12.09	12.97	14.33	24.46	27.30	2.84
	velocity	7.52	8.74	8.52	8.04	7.90	7.53	7.18	6.78	7.73	80.8	8.27	7.71	6.98	8.18	7.33		
<b>McLeod, Candice (JAM) (19)</b>	time	6.71	12.28	18.08	24.20	30.44	37.01	44.16	52.09	52.09	5 / 7							
	reaction time	0.132	interval	5.57	5.80	6.12	6.24	6.57	7.15	7.93	# of strides	12.28	11.92	12.81	15.08	24.20	27.89	3.69

velocity	7.45	8.98	8.62	8.17	8.01	7.61	6.99	6.31	7.68	204.0	8.14	8.39	7.81	6.63	8.26	7.17	
<b>Mangione, Alice (ITA) (1997)</b> time	6.88	12.59	18.59	24.82	31.25	37.96	45.05	52.61	52.61	1 / 8							
reaction time 0.130 interval		5.71	6.00	6.23	6.43	6.71	7.09	7.56		# of strides	12.59	12.23	13.14	14.65	24.82	27.79	2.97
velocity	7.27	8.76	8.33	8.03	7.78	7.45	7.05	6.61	7.60		7.94	8.18	7.61	6.83	8.06	7.20	

## 2023 Japanese National Championships (Osaka, JPN)

## FINAL

date 02-Jun-23

Yamanaka (2024) - analysis of men's and women's 400m and 300m runs in the 2023 season

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Kuboyama, Haruna (JPN) (1st)</b> time	6.83	12.75	18.82	25.09	31.68	38.55	45.68	53.19	53.19	7 / 1							
reaction time 0.169 interval		5.92	6.07	6.27	6.59	6.87	7.13	7.51		# of strides	12.75	12.34	13.46	14.64	25.09	28.10	3.01
velocity	7.32	8.45	8.24	7.97	7.59	7.28	7.01	6.66	7.52	210.5	7.84	8.10	7.43	6.83	7.97	7.12	
<b>Kojima, Yuzuki (JPN) (2004)</b> time	6.84	12.90	19.12	25.63	32.42	39.33	46.48	53.99	53.99	3 / 2							
reaction time 0.196 interval		6.06	6.22	6.51	6.79	6.91	7.15	7.51	<b>PB</b>	# of strides	12.90	12.73	13.70	14.66	25.63	28.36	2.73
velocity	7.31	8.25	8.04	7.68	7.36	7.24	6.99	6.66	7.41	203.0	7.75	7.86	7.30	6.82	7.80	7.05	
<b>Adachi, Marin (JPN) (2003)</b> time	6.91	13.03	19.30	25.68	32.28	39.10	46.31	54.05	54.05	5 / 3							
reaction time 0.185 interval		6.12	6.27	6.38	6.60	6.82	7.21	7.74		# of strides	13.03	12.65	13.42	14.95	25.68	28.37	2.69
velocity	7.24	8.17	7.97	7.84	7.58	7.33	6.93	6.46	7.40	208.0	7.67	7.91	7.45	6.69	7.79	7.05	
<b>Matsumoto, Nanako (JPN) (1st)</b> time	6.93	13.00	19.22	25.69	32.41	39.45	46.78	54.43	54.43	6 / 4							
reaction time 0.230 interval		6.07	6.22	6.47	6.72	7.04	7.33	7.65		# of strides	13.00	12.69	13.76	14.98	25.69	28.74	3.05
velocity	7.22	8.24	8.04	7.73	7.44	7.10	6.82	6.54	7.35	205.0	7.69	7.88	7.27	6.68	7.79	6.96	
<b>Iwata, Yuna (JPN) (1997)</b> time	6.97	12.95	19.07	25.46	32.14	39.12	46.55	54.48	54.48	8 / 5							
reaction time 0.171 interval		5.98	6.12	6.39	6.68	6.98	7.43	7.93		# of strides	12.95	12.51	13.66	15.36	25.46	29.02	3.56
velocity	7.17	8.36	8.17	7.82	7.49	7.16	6.73	6.31	7.34	213.5	7.72	7.99	7.32	6.51	7.86	6.89	

## Heat 3

date 01-Jun-23

Yamanaka (2024) - analysis of men's and women's 400m and 300m runs in the 2023 season

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Kuboyama, Haruna (JPN) (1st)</b> time	6.98	13.14	19.44	25.87	32.39	39.12	46.22	53.76	53.76	5 / 1							
reaction time 0.243 interval		6.16	6.30	6.43	6.52	6.73	7.10	7.54		# of strides	13.14	12.73	13.25	14.64	25.87	27.89	2.02
velocity	7.16	8.12	7.94	7.78	7.67	7.43	7.04	6.63	7.44	208.0	7.61	7.86	7.55	6.83	7.73	7.17	
<b>Adachi, Marin (JPN) (2003)</b> time	7.07	13.32	19.69	26.21	32.85	39.65	46.68	54.29	54.29	8 / 2							
reaction time 0.182 interval		6.25	6.37	6.52	6.64	6.80	7.03	7.61		# of strides	13.32	12.89	13.44	14.64	26.21	28.08	1.87
velocity	7.07	8.00	7.85	7.67	7.53	7.35	7.11	6.57	7.37	7.51	7.76	7.44	6.83	7.63	7.12		

## Heat 2

date 01-Jun-23

Yamanaka (2024) - analysis of men's and women's 400m and 300m runs in the 2023 season

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Matsumoto, Nanako (JPN) (1st)</b> time	6.95	13.04	19.25	25.72	32.39	39.32	46.58	54.35	54.35	2 / 1							
reaction time 0.255 interval		6.09	6.21	6.47	6.67	6.93	7.26	7.77		# of strides	13.04	12.68	13.60	15.03	25.72	28.63	2.91
velocity	7.19	8.21	8.05	7.73	7.50	7.22	6.89	6.44	7.36	7.67	7.89	7.35	6.65	7.78	6.99		
<b>Iwata, Yuna (JPN) (1997)</b> time	6.92	12.97	19.19	25.69	32.48	39.46	46.67	54.41	54.41	7 / 2							
reaction time 0.167 interval		6.05	6.22	6.50	6.79	6.98	7.21	7.74		# of strides	12.97	12.72	13.77	14.95	25.69	28.72	3.03
velocity	7.23	8.26	8.04	7.69	7.36	7.16	6.93	6.46	7.35	7.71	7.86	7.26	6.69	7.79	6.96		
<b>Kojima, Yuzuki (JPN) (2004)</b> time	7.02	13.03	19.27	25.81	32.48	39.43	46.64	54.42	54.42	6 / 3							
reaction time 0.207 interval		6.01	6.24	6.54	6.67	6.95	7.21	7.78		# of strides	13.03	12.78	13.62	14.99	25.81	28.61	2.80
velocity	7.12	8.32	8.01	7.65	7.50	7.19	6.93	6.43	7.35	7.67	7.82	7.34	6.67	7.75	6.99		

## 2023 Shimane High School Championships (Izumo, JPN)

## FINAL

date 26-May-23

Shimizu (2023) - shimane high school championships 2023 - biomechanics data analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Okuni, Chinatsu (JPN)</b> time		14.85		29.43		44.29		59.61	59.61	3 / 1							
reaction time interval				14.58		14.86		15.32		# of strides	14.85	14.58	14.86	15.32	29.43	30.18	0.75
velocity		6.73		6.86		6.73		6.53	6.71	6.73	6.86	6.73	6.53	6.80	6.63		
<b>Saito, Yuna (JPN)</b> time		15.44		28.97		44.08		60.52	60.52	5 / 2							
reaction time interval				13.53		15.11		16.44		# of strides	15.44	13.53	15.11	16.44	28.97	31.55	2.58
velocity		6.48		7.39		6.62		6.08	6.61	6.48	7.39	6.62	6.08	6.90	6.34		
<b>Kaneko, Akira (JPN)</b> time		14.12		28.28		43.75		60.93	60.93	6 / 3							
reaction time interval				14.16		15.47		17.18		# of strides	14.12	14.16	15.47	17.18	28.28	32.65	4.37
velocity		7.08		7.06		6.46		5.82	6.56	7.08	7.06	6.46	5.82	7.07	6.13		
<b>Matsui, Minata (JPN)</b> time		14.53		28.93		45.06		61.30	60.99	4 / 4							
reaction time interval				14.40		16.13		16.24		# of strides	14.53	14.40	16.13	16.24	28.93	32.37	3.44
velocity		6.88		6.94		6.20		6.16	6.56	6.88	6.94	6.20	6.16	6.91	6.18		
<b>Moriyoshi, Hinata (JPN)</b> time		14.88		29.68		45.06		61.30	61.30	2 / 5							
reaction time interval				14.80		15.38		16.24		# of strides	14.88	14.80	15.38	16.24	29.68	31.62	1.94
velocity		6.72		6.76		6.50		6.16	6.53	6.72	6.76	6.50	6.16	6.74	6.33		
<b>Kanayama, Aoi (JPN)</b> time		14.73		29.42		45.08		62.40	62.40	8 / 6							
reaction time interval				14.69		15.66		17.32		# of strides	14.73	14.69	15.66	17.32	29.42	32.98	3.56
velocity		6.79		6.81		6.39		5.77	6.41	6.79	6.81	6.39	5.77	6.80	6.06		
<b>Yamamoto, Mizuke (JPN)</b> time		15.00		30.32		46.12		64.24	64.24	1 / 7							
reaction time interval				15.32		15.80		18.12		# of strides	15.00	15.32	15.80	18.12	30.32	33.92	3.60
velocity		6.67		6.53		6.33		5.52	6.23	6.67	6.53	6.33	5.52	6.60	5.90		
<b>Kishimoto, Reina (JPN)</b> time		14.57		29.23		46.38		64.37	64.37	7 / 8							
reaction time interval				14.66		17.15		17.99		# of strides	14.57	14.66	17.15	17.99	29.23	35.14	5.91
velocity		6.86		6.82		5.83		5.56	6.21	6.86	6.82	5.83	5.56	6.84	5.69		

## 2023 Doha Diamond League (Doha, QAT)

## FINAL

date 05-May-23

Omega Timing (2023) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Paulino, Marileidy (DOM) (19)</b> time	6.84	12.53	18.45	24.60	30.79	37.19	43.59	50.51	50.51	5 / 1							
reaction time 0.183 interval		5.69	5.92	6.15	6.19	6.40	6.40	6.92		# of strides	12.53	12.07	12.59	13.32	24.60	25.91	1.31
velocity	7.31	8.79	8.45	8.13	8.08	7.81	7.81	7.23	7.92	174.7	7.98	8.29	7.94	7.51	8.13	7.72	
<b>Little, Shamier (USA) (1995)</b> time	6.65	12.11	18.04	24.30	30.73	37.26	43.82	50.84	50.84	6 / 2							
reaction time 0.177 interval		5.46	5.93	6.26	6.43	6.53	6.56	7.02		# of strides	12.11	12.19	12.96	13.58	24.30	26.54	2.24
velocity	7.52	9.16	8.43	7.99	7.78	7.66	7.62	7.12	7.87	191.0	8.26	8.20	7.72	7.36	8.23	7.54	
<b>Kaczmarek, Natalia (POL) (19)</b> time	6.89	12.70	18.94	25.22	31.59	38.09	44.60	51.64	51.64	8 / 3							
reaction time 0.171 interval		5.81	6.24	6.28	6.37	6.50	6.51	7.04		# of strides	12.70	12.52	12.87	13.55	25.22	26.42	1.20
velocity	7.26	8.61	8.01	7.96	7.85	7.69	7.68	7.10	7.75	195.0	7.87	7.99	7.77	7.38	7.93	7.57	
<b>Williams, Sada (BAR) (1997)</b> time	6.74	12.40	18.40	24.63	30.95	37.58	44.52	52.05	52.05	4 / 4							
reaction time 0.184 interval		5.66	6.00	6.23	6.32	6.63	6.94	7.53		# of strides	12.40	12.23	12.95	14.47	24.63	27.42	2.79
velocity	7.42	8.83	8.33	8.03	7.91	7.54	7.20	6.64	7.68	193.5	8.06	8.18	7.72	6.91	8.12	7.29	
<b>McLeod, Candice (JAM) (19)</b> time	6.82	12.47	18.56	24.78	31.11	37.67	44.69	52.43	52.43	7 / 5							
reaction time 0.172 interval		5.65	6.09	6.22	6.33	6.56	7.02	7.74		# of strides	12.47	12.31	12.89	14.76	24.78	27.65	2.87
velocity	7.33	8.85	8.21	8.04	7.90	7.62	7.12	6.46	7.63	203.0	8.02	8.12	7.76	6.78	8.07	7.23	
<b>McPherson, Stephenie Ann</b> (time	6.90	12.58	18.54	24.74	31.13	37.92	44.95	52.93	52.93	3 / 6							
reaction time 0.139 interval		5.68	5.96	6.20	6.39	6.79	7.03	7.98		# of strides	12.58	12.16	13.18	15.01	24.74	28.19	3.45
velocity	7.25	8.80	8.39	8.06	7.82	7.36	7.11	6.27	7.56	193.0	7.95	8.22	7.59	6.66	8.08	7.09	
<b>Święty-Ersetic, Justyna (POL)</b> time	7.14	12.98	19.15	25.61	32.20	38.95	45.73	53.08	53.08	2 / 7							
reaction time 0.181 interval		5.84	6.17	6.46	6.59	6.75	6.78	7.35		# of strides	12.98	12.63	13.34	14.13	25.61	27.47	1.86
velocity	7.00	8.56	8.10	7.74	7.59	7.41	7.37	6.80	7.54	7.70	7.92	7.50	7.08	7.81	7.28		
<b>Jefferson, Kyra (USA) (1994)</b> time	6.85	12.60	18.76	25.20	31.92	38.84	45.91	54.00	54.00	1 / 8							
reaction time 0.164 interval		5.75	6.16	6.44	6.72	6.92	7.07	8.09		# of strides	12.60	12.60	13.64	15.16	25.20	28.80	3.60
velocity	7.30	8.70	8.12	7.76	7.44	7.23	7.07	6.18	7.41	7.94	7.94	7.33	6.60	7.94	6.94		

## 2022 Weltklasse (Zürich, SUI)

## FINAL

date 08-Sep-22

Omega Timing (2022) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Paulino, Marileidy (DOM) (19)</b> time	6.81	12.33	17.96	23.67	29.50	35.60	42.04	48.99	48.99	6 / 1							
reaction time 0.172 interval		5.52	5.63	5.71	5.83	6.10	6.44	6.95	<b>NR PB</b>	# of strides	12.33	11.34	11.93	13.39	23.67	25.32	1.65
velocity	7.34	9.06	8.88	8.76	8.58	8.20	7.76	7.19	8.16	170.5	8.11	8.82	8.38	7.47	8.45	7.90	
<b>Cofil, Fiordaliza (DOM) (200)</b> time	6.78	12.47	18.30	24.23	30.30	36.57	43.10	49.93	49.93	4 / 2							
reaction time 0.162 interval		5.69	5.83	5.93	6.07	6.27	6.53	6.83		# of strides	12.47	11.76	12.34	13.36	24.23	25.70	1.47
velocity	7.37	8.79	8.58	8.43	8.24	7.97	7.66	7.32	8.01	8.02	8.50	8.10	7.49	8.25	7.78		
<b>Williams, Sada (BAR) (1997)</b> time	6.60	12.18	17.88	23.70	29.66	35.99	42.75	49.98	49.98	5 / 3							
reaction time 0.133 interval		5.58	5.70	5.82	5.96	6.33	6.76	7.23		# of strides	12.18	11.52	12.29	13.99	23.70	26.28	2.58
velocity	7.58	8.96	8.77	8.59	8.39	7.90	7.40	6.92	8.00	193.5	8.21	8.68	8.14	7.15	8.44	7.61	
<b>McLeod, Candice (JAM) (19)</b> time	6.66	12.18	17.88	23.76	29.75	36.07	42.76	50.03	50.03	7 / 4							
reaction time 0.149 interval		5.52	5.70	5.88	5.99	6.32	6.69	7.27		# of strides	12.18	11.58	12.31	13.96	23.76	26.27	2.51
velocity	7.51	9.06	8.77	8.50	8.35	7.91	7.47	6.88	8.00	8.21	8.64	8.12	7.16	8.42	7.61		
<b>Kaczmarek, Natalia (POL) (19)</b> time	6.84	12.50	18.34	24.32	30.51	37.05	43.84	50.74	50.74	3 / 5							
reaction time 0.143 interval		5.66	5.84	5.98	6.19	6.54	6.79	6.90		# of strides	12.50	11.82	12.73	13.69	24.32	26.42	2.10
velocity	7.31	8.83	8.56	8.36	8.08	7.65	7.36	7.25	7.88	8.00	8.46	7.86	7.30	8.22	7.57		
<b>Kielbasinska, Anna (POL) (19)</b> time	6.59	12.27	18.16	24.17	30.45	36.97	43.74	50.93	50.93	8 / 6							
reaction time 0.158 interval		5.68	5.89	6.01	6.28	6.52	6.77	7.19		# of strides	12.27	11.90	12.80	13.96	24.17	26.76	2.59
velocity	7.59	8.80	8.49	8.32	7.96	7.67	7.39	6.95	7.85	8.15	8.40	7.81	7.16	8.27	7.47		
<b>Klaver, Lieke (NED) (1998)</b> time	6.72	12.31	18.19	24.22	30.54	37.23	44.17	51.55	51.55	1 / 7							
reaction time 0.172 interval		5.59	5.88	6.03	6.32	6.69	6.94	7.38		# of strides	12.31	11.91	13.01	14.32	24.22	27.33	3.11
velocity	7.44	8.94	8.50	8.29	7.91	7.47	7.20	6.78	7.76	8.12	8.40	7.69	6.98	8.26	7.32		
<b>McPherson, Stephenie Ann</b> (time	6.97	12.72	18.67	24.68	30.87	37.38	44.44	52.32	52.32	2 / 8							
reaction time 0.127 interval		5.75	5.95	6.01	6.19	6.51	7.06	7.88		# of strides	12.72	11.96	12.70	14.94	24.68	27.64	2.96
velocity	7.17	8.70	8.40	8.32	8.08	7.68	7.08	6.35	7.65	7.86	8.36	7.87	6.69	8.10	7.24		

## National FINAL

date 08-Sep-22

Omega Timing (2022) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Brossier, Amandine (FRA) (1)</b> time	6.75	12.33	18.06	24.01	30.22	36.72	43.66	51.21	51.21	6 / 1							
reaction time 0.151 interval		5.58	5.73	5.95	6.21	6.50	6.94	7.55	<b>=PB</b>	# of strides	12.33	11.68	12.71	14.49	24.01	27.20	3.19
velocity	7.41	8.96	8.73	8.40	8.05	7.69	7.20	6.62	7.81	8.11	8.56	7.87	6.90	8.33	7.35		
<b>Walli, Susanne (AUT) (1996)</b> time	7.04	12.73	18.59	24.59	30.86	37.53	44.53	51.74	51.74	4 / 2							
reaction time 0.148 interval		5.69	5.86	6.00	6.27	6.67	7.00	7.21		# of strides	12.73	11.86	12.94	14.21	24.59	27.15	2.56
velocity	7.10	8.79	8.53	8.33	7.97	7.50	7.14	6.93	7.73	7.86	8.43	7.73	7.04	8.13	7.37		
<b>Lemmens, Silke (SUI) (1999)</b> time	6.71	12.39	18.27	24.46	30.92	37.67	44.64	52.03	52.03	7 / 3							
reaction time 0.172 interval		5.68	5.88	6.19	6.46	6.75	6.97	7.39		# of strides	12.39	12.07	13.21	14.36	24.46	27.57	3.11
velocity	7.45	8.80	8.50	8.08	7.74	7.41	7.17	6.77	7.69	8.07	8.29	7.57	6.96	8.18	7.25		
<b>Fahr, Annina (SUI) (1993)</b> time	6.96	12.80	18.82	24.97	31.24	37.78	44.62	52.05	52.05	8 / 4							
reaction time 0.167 interval		5.84	6.02	6.15	6.27	6.54	6.84	7.43	<b>PB</b>	# of strides	12.80	12.17	12.81	14.27	24.97	27.08	2.11



velocity	7.18	8.56	8.31	8.13	7.97	7.65	7.31	6.73	7.68		7.81	8.22	7.81	7.01	8.01	7.39	
<b>Saalberg, Eveline (NED) (199)</b> time	6.97	12.61	18.41	24.52	31.00	37.91	44.97	52.40	52.40	5 / 5							
reaction time 0.207 interval		5.64	5.80	6.11	6.48	6.91	7.06	7.43		# of strides	12.61	11.91	13.39	14.49	24.52	27.88	3.36
velocity	7.17	8.87	8.62	8.18	7.72	7.24	7.08	6.73	7.63		7.93	8.40	7.47	6.90	8.16	7.17	
<b>de Witte, Lisanne (SUI) (199)</b> time	7.01	12.90	19.00	25.32	31.85	38.59	45.53	52.71	52.71	1 / 6							
reaction time 0.150 interval		5.89	6.10	6.32	6.53	6.74	6.94	7.18		# of strides	12.90	12.42	13.27	14.12	25.32	27.39	2.07
velocity	7.13	8.49	8.20	7.91	7.66	7.42	7.20	6.96	7.59		7.75	8.05	7.54	7.08	7.90	7.30	
<b>Niederberger, Julia (SUI) (20)</b> time	6.84	12.72	18.81	25.00	31.43	38.23	45.35	52.86	52.86	2 / 7							
reaction time 0.172 interval		5.88	6.09	6.19	6.43	6.80	7.12	7.51		# of strides	12.72	12.28	13.23	14.63	25.00	27.86	2.86
velocity	7.31	8.50	8.21	8.08	7.78	7.35	7.02	6.66	7.57		7.86	8.14	7.56	6.84	8.00	7.18	
<b>Giger, Yasmin (SUI) (1999)</b> time	7.10	13.09	19.21	25.48	31.89	38.60	45.59	52.90	52.90	3 / 8							
reaction time 0.156 interval		5.99	6.12	6.27	6.41	6.71	6.99	7.31		# of strides	13.09	12.39	13.12	14.30	25.48	27.42	1.94
velocity	7.04	8.35	8.17	7.97	7.80	7.45	7.15	6.84	7.56		7.64	8.07	7.62	6.99	7.85	7.29	

**2022 Memorial van Damme (Brussels, BEL)****FINAL**

date 02-Sep-22

Omega Timing (2022) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Cofil, Fiordaliza (DOM) (200)</b> time	6.75	12.45	18.22	24.12	30.18	36.43	42.86	49.80	49.80	2 / 1							
reaction time 0.160 interval		5.70	5.77	5.90	6.06	6.25	6.43	6.94	<b>PB</b>	# of strides	12.45	11.67	12.31	13.37	24.12	25.68	1.56
velocity	7.41	8.77	8.67	8.47	8.25	8.00	7.78	7.20	8.03		8.03	8.57	8.12	7.48	8.29	7.79	
<b>Williams, Sada (BAR) (1997)</b> time	6.65	12.17	17.72	23.51	29.53	35.99	42.83	50.15	50.15	4 / 2							
reaction time 0.169 interval		5.52	5.55	5.79	6.02	6.46	6.84	7.32		# of strides	12.17	11.34	12.48	14.16	23.51	26.64	3.13
velocity	7.52	9.06	9.01	8.64	8.31	7.74	7.31	6.83	7.98		8.22	8.82	8.01	7.06	8.51	7.51	
<b>Bolingo, Cynthia (BEL) (199)</b> time	6.66	12.27	17.72	23.87	29.98	36.39	43.07	50.19	50.19	5 / 3							
reaction time 0.172 interval		5.61	5.45	6.15	6.11	6.41	6.68	7.12	<b>NR PB</b>	# of strides	12.27	11.60	12.52	13.80	23.87	26.32	2.45
velocity	7.51	8.91	9.17	8.13	8.18	7.80	7.49	7.02	7.97		8.15	8.62	7.99	7.25	8.38	7.60	
<b>Moraa, Mary (KEN) (2000)</b> time	7.10	12.92	18.68	24.63	30.81	37.25	43.83	50.67	50.67	3 / 4							
reaction time 0.168 interval		5.82	5.76	5.95	6.18	6.44	6.58	6.84	<b>NR PB</b>	# of strides	12.92	11.71	12.62	13.42	24.63	26.04	1.41
velocity	7.04	8.59	8.68	8.40	8.09	7.76	7.60	7.31	7.89		7.74	8.54	7.92	7.45	8.12	7.68	
<b>McLeod, Candice (JAM) (19)</b> time	7.02	12.71	18.40	24.28	30.39	36.79	43.46	50.76	50.76	8 / 5							
reaction time 0.214 interval		5.69	5.69	5.88	6.11	6.40	6.67	7.30		# of strides	12.71	11.57	12.51	13.97	24.28	26.48	2.20
velocity	7.12	8.79	8.79	8.50	8.18	7.81	7.50	6.85	7.88		7.87	8.64	7.99	7.16	8.24	7.55	
<b>Klaver, Lieke (NED) (1998)</b> time	6.69	12.26	17.94	23.87	30.16	36.76	43.58	50.87	50.87	7 / 6							
reaction time 0.182 interval		5.57	5.68	5.93	6.29	6.60	6.82	7.29		# of strides	12.26	11.61	12.89	14.11	23.87	27.00	3.13
velocity	7.47	8.98	8.80	8.43	7.95	7.58	7.33	6.86	7.86		8.16	8.61	7.76	7.09	8.38	7.41	
<b>Kielbasinska, Anna (POL) (1)</b> time	6.59	12.31	18.09	24.10	30.41	37.06	43.98	51.63	51.63	6 / 7							
reaction time 0.150 interval		5.72	5.78	6.01	6.31	6.65	6.92	7.65		# of strides	12.31	11.79	12.96	14.57	24.10	27.53	3.43
velocity	7.59	8.74	8.65	8.32	7.92	7.52	7.23	6.54	7.75		8.12	8.48	7.72	6.86	8.30	7.26	
<b>McPherson, Stephanie Ann</b> time	6.70	12.22	17.95	23.84	29.96	36.56	43.66	51.73	51.73	1 / 8							
reaction time 0.136 interval		5.52	5.73	5.89	6.12	6.60	7.10	8.07		# of strides	12.22	11.62	12.72	15.17	23.84	27.89	4.05
velocity	7.46	9.06	8.73	8.49	8.17	7.58	7.04	6.20	7.73		8.18	8.61	7.86	6.59	8.39	7.17	

**National FINAL**

date 02-Sep-22

Omega Timing (2022) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Bolingo, Cynthia (BEL) (199)</b> time	6.87	12.51	18.34	24.40	30.64	37.17	44.20	51.74	51.74	2 / 1							
reaction time 0.176 interval		5.64	5.83	6.06	6.24	6.53	7.03	7.54		# of strides	12.51	11.89	12.77	14.57	24.40	27.34	2.94
velocity	7.28	8.87	8.58	8.25	8.01	7.66	7.11	6.63	7.73		7.99	8.41	7.83	6.86	8.20	7.32	
<b>Ponette, Helena (BEL) (2000)</b> time	6.97	12.60	18.35	24.38	30.72	37.46	44.40	51.82	51.82	6 / 2							
reaction time 0.146 interval		5.63	5.75	6.03	6.34	6.74	6.94	7.42	<b>PB</b>	# of strides	12.60	11.78	13.08	14.36	24.38	27.44	3.06
velocity	7.17	8.88	8.70	8.29	7.89	7.42	7.20	6.74	7.72		7.94	8.49	7.65	6.96	8.20	7.29	
<b>Clayton, Rushell (JAM) (199)</b> time	6.98	12.64	18.53	24.69	31.03	37.71	44.69	52.02	52.02	8 / 3							
reaction time 0.233 interval		5.66	5.89	6.16	6.34	6.68	6.98	7.33	<b>PB</b>	# of strides	12.64	12.05	13.02	14.31	24.69	27.33	2.64
velocity	7.16	8.83	8.49	8.12	7.89	7.49	7.16	6.82	7.69		7.91	8.30	7.68	6.99	8.10	7.32	
<b>Saalberg, Eveline (NED) (199)</b> time	6.96	12.58	18.38	24.44	30.80	37.59	44.74	52.48	52.48	7 / 4							
reaction time 0.226 interval		5.62	5.80	6.06	6.36	6.79	7.15	7.74		# of strides	12.58	11.86	13.15	14.89	24.44	28.04	3.60
velocity	7.18	8.90	8.62	8.25	7.86	7.36	6.99	6.46	7.62		7.95	8.43	7.60	6.72	8.18	7.13	
<b>Laus, Camille (BEL) (1993)</b> time	7.06	12.94	19.01	25.39	32.01	38.88	45.78	52.93	52.93	5 / 5							
reaction time 0.226 interval		5.88	6.07	6.38	6.62	6.87	6.90	7.15		# of strides	12.94	12.45	13.49	14.05	25.39	27.54	2.15
velocity	7.08	8.50	8.24	7.84	7.55	7.28	7.25	6.99	7.56		7.73	8.03	7.41	7.12	7.88	7.26	
<b>Vervet, Imke (BEL) (1993)</b> time	6.84	12.53	18.54	24.88	31.53	38.50	45.69	53.00	53.00	4 / 6							
reaction time 0.160 interval		5.69	6.01	6.34	6.65	6.97	7.19	7.31		# of strides	12.53	12.35	13.62	14.50	24.88	28.12	3.24
velocity	7.31	8.79	8.32	7.89	7.52	7.17	6.95	6.84	7.55		7.98	8.10	7.34	6.90	8.04	7.11	
<b>Couckuyt, Paulien (BEL) (19)</b> time	6.91	12.78	18.93	25.38	32.03	38.86	45.97	53.45	53.45	3 / 7							
reaction time 0.204 interval		5.87	6.15	6.45	6.65	6.83	7.11	7.48		# of strides	12.78	12.60	13.48	14.59	25.38	28.07	2.69
velocity	7.24	8.52	8.13	7.75	7.52	7.32	7.03	6.68	7.48		7.82	7.94	7.42	6.85	7.88	7.13	
<b>Hespel, Nina (BEL) (2001)</b> time	6.90	12.65	18.76	25.19	31.85	38.82	46.23	54.47	54.47	1 / 8							
reaction time 0.196 interval		5.75	6.11	6.43	6.66	6.97	7.41	8.24		# of strides	12.65	12.54	13.63	15.65	25.19	29.28	4.09
velocity	7.25	8.70	8.18	7.78	7.51	7.17	6.75	6.07	7.34		7.91	7.97	7.34	6.39	7.94	6.83	

**2022 Athletissima (Lausanne, SUI)**

## FINAL

date 26-Aug-22

Omega Timing (2022) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Paulino, Marileidy (DOM) (19)</b> time	6.60	11.98	17.51	23.29	29.35	35.83	42.55	49.87	49.87	6 / 1							
reaction time 0.178 interval		5.38	5.53	5.78	6.06	6.48	6.72	7.32		# of strides	11.98	11.31	12.54	14.04	23.29	26.58	3.29
velocity	7.58	9.29	9.04	8.65	8.25	7.72	7.44	6.83	8.02	173.7	8.35	8.84	7.97	7.12	8.59	7.52	
<b>Williams, Sada (BAR) (1997)</b> time	6.64	12.14	17.78	23.59	29.56	35.95	42.67	49.94	49.94	5 / 2							
reaction time 0.168 interval		5.50	5.64	5.81	5.97	6.39	6.72	7.27		# of strides	12.14	11.45	12.36	13.99	23.59	26.35	2.76
velocity	7.53	9.09	8.87	8.61	8.38	7.82	7.44	6.88	8.01	197.0	8.24	8.73	8.09	7.15	8.48	7.59	
<b>Cofil, Fiordaliza (DOM) (200)</b> time	6.64	12.23	18.00	24.02	30.12	36.51	43.02	50.13	50.13	8 / 3							
reaction time 0.168 interval		5.59	5.77	6.02	6.10	6.39	6.51	7.11	<b>PB</b>	# of strides	12.23	11.79	12.49	13.62	24.02	26.11	2.09
velocity	7.53	8.94	8.67	8.31	8.20	7.82	7.68	7.03	7.98	189.5	8.18	8.48	8.01	7.34	8.33	7.66	
<b>McLeod, Candice (JAM) (19)</b> time	6.71	12.21	17.86	23.78	29.94	36.43	43.26	50.80	50.80	7 / 4							
reaction time 0.162 interval		5.50	5.65	5.92	6.16	6.49	6.83	7.54		# of strides	12.21	11.57	12.65	14.37	23.78	27.02	3.24
velocity	7.45	9.09	8.85	8.45	8.12	7.70	7.32	6.63	7.87	200.7	8.19	8.64	7.91	6.96	8.41	7.40	
<b>Kaczmarek, Natalia (POL) (1)</b> time	6.80	12.40	18.22	24.26	30.55	37.16	43.89	51.03	51.03	3 / 5							
reaction time 0.150 interval		5.60	5.82	6.04	6.29	6.61	6.73	7.14		# of strides	12.40	11.86	12.90	13.87	24.26	26.77	2.51
velocity	7.35	8.93	8.59	8.28	7.95	7.56	7.43	7.00	7.84		8.06	8.43	7.75	7.21	8.24	7.47	
<b>Klaver, Lieke (NED) (1998)</b> time	6.70	12.21	18.00	24.03	30.40	37.13	43.91	51.15	51.15	4 / 6							
reaction time 0.194 interval		5.51	5.79	6.03	6.37	6.73	6.78	7.24		# of strides	12.21	11.82	13.10	14.02	24.03	27.12	3.09
velocity	7.46	9.07	8.64	8.29	7.85	7.43	7.37	6.91	7.82		8.19	8.46	7.63	7.13	8.32	7.37	
<b>McPherson, Stephenie Ann</b> time	6.85	12.51	18.46	24.56	30.80	37.26	44.11	51.63	51.63	2 / 7							
reaction time 0.139 interval		5.66	5.95	6.10	6.24	6.46	6.85	7.52		# of strides	12.51	12.05	12.70	14.37	24.56	27.07	2.51
velocity	7.30	8.83	8.40	8.20	8.01	7.74	7.30	6.65	7.75		7.99	8.30	7.87	6.96	8.14	7.39	
<b>Williams, Jodie (GBR) (1993)</b> time	6.57	12.10	17.90	23.99	30.46	37.32	44.52	52.31	52.31	1 / 8							
reaction time 0.148 interval		5.53	5.80	6.09	6.47	6.86	7.20	7.79		# of strides	12.10	11.89	13.33	14.99	23.99	28.32	4.33
velocity	7.61	9.04	8.62	8.21	7.73	7.29	6.94	6.42	7.65		8.26	8.41	7.50	6.67	8.34	7.06	

## National FINAL

date 26-Aug-22

Omega Timing (2022) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Giger, Yasmin (SUI) (1999)</b> time	7.0	12.9	19.0	25.3	31.7	38.3	45.2	52.42	52.42	6 / 1							
reaction time 0.150 interval		5.90	6.10	6.30	6.40	6.60	6.90	7.22	<b>PB</b>	# of strides	12.90	12.40	13.00	14.12	25.30	27.12	1.82
velocity	7.14	8.47	8.20	7.94	7.81	7.58	7.25	6.93	7.63		7.75	8.06	7.69	7.08	7.91	7.37	
<b>Fahr, Annina (SUI) (1993)</b> time	6.9	12.7	18.7	24.9	31.3	38.0	45.1	52.91	52.91	4 / 2							
reaction time 0.176 interval		5.80	6.00	6.20	6.40	6.70	7.10	7.81	<b>PB</b>	# of strides	12.70	12.20	13.10	14.91	24.90	28.01	3.11
velocity	7.25	8.62	8.33	8.06	7.81	7.46	7.04	6.40	7.56		7.87	8.20	7.63	6.71	8.03	7.14	
<b>Lemmens, Silke (SUI) (1999)</b> time	6.7	12.5	18.5	24.8	31.4	38.2	45.4	53.14	53.14	5 / 3							
reaction time 0.181 interval		5.80	6.00	6.30	6.60	6.80	7.20	7.74		# of strides	12.50	12.30	13.40	14.94	24.80	28.34	3.54
velocity	7.46	8.62	8.33	7.94	7.58	7.35	6.94	6.46	7.53		8.00	8.13	7.46	6.69	8.06	7.06	
<b>Pellaud, Rachel (SUI) (1995)</b> time	7.1	13.1	19.2	25.5	32.1	39.0	46.0	53.47	53.47	2 / 4							
reaction time 0.153 interval		6.00	6.10	6.30	6.60	6.90	7.00	7.47		# of strides	13.10	12.40	13.50	14.47	25.50	27.97	2.47
velocity	7.04	8.33	8.20	7.94	7.58	7.25	7.14	6.69	7.48		7.63	8.06	7.41	6.91	7.84	7.15	
<b>King, Sarah (SUI) (1996)</b> time	6.9	12.5	18.4	24.7	31.3	38.3	45.9	54.00	54.00	3 / 5							
reaction time 0.194 interval		5.60	5.90	6.30	6.60	7.00	7.60	8.10		# of strides	12.50	12.20	13.60	15.70	24.70	29.30	4.60
velocity	7.25	8.93	8.47	7.94	7.58	7.14	6.58	6.17	7.41		8.00	8.20	7.35	6.37	8.10	6.83	
<b>Gröbli, Michelle (SUI) (2001)</b> time	6.8	12.7	18.8	25.2	31.8	38.7	46.0	54.09	54.09	7 / 6							
reaction time 0.154 interval		5.90	6.10	6.40	6.60	6.90	7.30	8.09		# of strides	12.70	12.50	13.50	15.39	25.20	28.89	3.69
velocity	7.35	8.47	8.20	7.81	7.58	7.25	6.85	6.18	7.40		7.87	8.00	7.41	6.50	7.94	6.92	
<b>Salamin, Noémie (SUI) (1999)</b> time	7.1	13.1	19.3	25.9	32.8	39.9	47.3	55.35	55.35	8 / 7							
reaction time 0.206 interval		6.00	6.20	6.60	6.90	7.10	7.40	8.05		# of strides	13.10	12.80	14.00	15.45	25.90	29.45	3.55
velocity	7.04	8.33	8.06	7.58	7.25	7.04	6.76	6.21	7.23		7.63	7.81	7.14	6.47	7.72	6.79	
<b>Rusca, Alizée (SUI) (1999)</b> time	6.8	12.8	19.1	25.7	32.6	39.8	47.5	55.88	55.88	1 / 8							
reaction time 0.159 interval		6.00	6.30	6.60	6.90	7.20	7.70	8.38	<b>PB</b>	# of strides	12.80	12.90	14.10	16.08	25.70	30.18	4.48
velocity	7.35	8.33	7.94	7.58	7.25	6.94	6.49	5.97	7.16		7.81	7.75	7.09	6.22	7.78	6.63	

## 2022 European Athletics Championships (Munich, GER)

## FINAL

date 17-Aug-22

European Athletics (2022) - european athletics championships race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Bol, Femke (NED) (2000)</b> time		12.20		23.70		36.17		49.44	49.44	5 / 1							
reaction time 0.252 interval				11.50		12.47		13.27	<b>NR PB</b>	# of strides	12.20	11.50	12.47	13.27	23.70	25.74	2.04
velocity		8.20		8.70		8.02		7.54	8.09	180.0	8.20	8.70	8.02	7.54	8.44	7.77	
<b>Kaczmarek, Natalia (POL) (1)</b> time		12.17		23.59		36.29		49.94	49.94	6 / 2							
reaction time 0.178 interval				11.42		12.70		13.65		# of strides	12.17	11.42	12.70	13.65	23.59	26.35	2.76
velocity		8.22		8.76		7.87		7.33	8.01	195.0	8.22	8.76	7.87	7.33	8.48	7.59	
<b>Kielbasinska, Anna (POL) (1)</b> time		12.39		24.21		36.90		50.29	50.29	4 / 3							
reaction time 0.225 interval				11.82		12.69		13.39		# of strides	12.39	11.82	12.69	13.39	24.21	26.08	1.87
velocity		8.07		8.46		7.88		7.47	7.95	194.0	8.07	8.46	7.88	7.47	8.26	7.67	
<b>Ohuruogu, Victoria (GBR) (1)</b> time		12.51		24.43		37.04		50.51	50.51	3 / 4							
reaction time 0.269 interval				11.92		12.61		13.47		# of strides	12.51	11.92	12.61	13.47	24.43	26.08	1.65
velocity		7.99		8.39		7.93		7.42	7.92	192.0	7.99	8.39	7.93	7.42	8.19	7.67	
<b>Adeleke, Rhasidat (IRL) (200)</b> time		12.32		23.94		36.60		50.53	50.53	1 / 5							

reaction time	0.199	interval		11.62	12.66	13.93	<b>NR PB</b>	# of strides	12.32	11.62	12.66	13.93	23.94	26.59	2.65				
velocity	8.12			8.61	7.90	7.18	7.92	183.0	8.12	8.61	7.90	7.18	8.35	7.52					
<b>Klaver, Lieke (NED) (1998)</b>	time	12.08	23.36	36.26	50.56	50.56	8 / 6												
reaction time	0.195	interval		11.28	12.90	14.30	# of strides	12.08	11.28	12.90	14.30	23.36	27.20	3.84					
velocity	8.28			8.87	7.75	6.99	187.0	8.28	8.87	7.75	6.99	8.56	7.35						
<b>Bolingo, Cynthia (BEL) (199)</b>	time	12.18	24.05	36.98	50.94	50.94	7 / 7												
reaction time	0.227	interval		11.87	12.93	13.96	# of strides	12.18	11.87	12.93	13.96	24.05	26.89	2.84					
velocity	8.21			8.42	7.73	7.16	189.0	8.21	8.42	7.73	7.16	8.32	7.44						
<b>Baumgart-Witan, Iga (POL)</b>	time	12.64	24.41	37.11	51.28	51.28	2 / 8												
reaction time	0.228	interval		11.77	12.70	14.17	# of strides	12.64	11.77	12.70	14.17	24.41	26.87	2.46					
velocity	7.91			8.50	7.87	7.06	180.0	7.91	8.50	7.87	7.06	8.19	7.44						
<b>Semi-Final 3</b>	date	16-Aug-22	<i>European Athletics (2022) - european athletics championships race analysis</i>																
			<b>50m</b>	<b>100m</b>	<b>150m</b>	<b>200m</b>	<b>250m</b>	<b>300m</b>	<b>350m</b>	<b>400m</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>0-100m</b>	<b>100-200m</b>	<b>200-300m</b>	<b>300-400m</b>	<b>0-200m</b>	<b>200m-400m</b>	<b>Differential</b>
<b>Bol, Femke (NED) (2000)</b>	time		12.41	24.02	36.58	50.60	50.60	6 / 1											
reaction time	0.243	interval		11.61	12.56	14.02	# of strides	12.41	11.61	12.56	14.02	24.02	26.58	2.56					
velocity	8.06			8.61	7.96	7.13	179.7	8.06	8.61	7.96	7.13	8.33	7.52						
<b>Bolingo, Cynthia (BEL) (199)</b>	time		12.35	24.39	37.15	50.83	50.83	8 / 2											
reaction time	0.217	interval		12.04	12.76	13.68	# of strides	12.35	12.04	12.76	13.68	24.39	26.44	2.05					
velocity	8.10			8.31	7.84	7.31	189.7	8.10	8.31	7.84	7.31	8.20	7.56						
<b>Adeleke, Rhasidat (IRL) (200)</b>	time		12.47	24.29	37.06	51.08	51.08	4 / 3											
reaction time	0.254	interval		11.82	12.77	14.02	# of strides	12.47	11.82	12.77	14.02	24.29	26.79	2.50					
velocity	8.02			8.46	7.83	7.13	185.0	8.02	8.46	7.83	7.13	8.23	7.47						
<b>Brossier, Amandine (FRA) (*)</b>	time		12.54	24.50	37.14	51.21	51.21	7 / 4											
reaction time	0.158	interval		11.96	12.64	14.07	# of strides	12.54	11.96	12.64	14.07	24.50	26.71	2.21					
velocity	7.97			8.36	7.91	7.11	202.0	7.97	8.36	7.91	7.11	8.16	7.49						
<b>Yeargin, Nicole (GBR) (1997)</b>	time		12.69	24.71	37.78	52.09	52.09	5 / 5											
reaction time	0.238	interval		12.02	13.07	14.31	# of strides	12.69	12.02	13.07	14.31	24.71	27.38	2.67					
velocity	7.88			8.32	7.65	6.99	194.0	7.88	8.32	7.65	6.99	8.09	7.30						
<b>Święty-Ersetic, Justyna (POL)</b>	time		12.96	25.07	38.10	52.17	52.17	3 / 6											
reaction time	0.284	interval		12.11	13.03	14.07	# of strides	12.96	12.11	13.03	14.07	25.07	27.10	2.03					
velocity	7.72			8.26	7.67	7.11	209.0	7.72	8.26	7.67	7.11	7.98	7.38						
<b>Walli, Susanne (AUT) (1996)</b>	time		12.72	24.91	38.10	52.58	52.58	1 / 7											
reaction time	0.279	interval		12.19	13.19	14.48	# of strides	12.72	12.19	13.19	14.48	24.91	27.67	2.76					
velocity	7.86			8.20	7.58	6.91	197.0	7.86	8.20	7.58	6.91	8.03	7.23						
<b>Schmidt, Alica (GER) (1998)</b>	time		12.87	25.12	38.43	53.12	53.12	2 / 8											
reaction time	0.208	interval		12.25	13.31	14.69	# of strides	12.87	12.25	13.31	14.69	25.12	28.00	2.88					
velocity	7.77			8.16	7.51	6.81	185.0	7.77	8.16	7.51	6.81	7.96	7.14						
<b>Semi-Final 2</b>	date	16-Aug-22	<i>European Athletics (2022) - european athletics championships race analysis</i>																
			<b>50m</b>	<b>100m</b>	<b>150m</b>	<b>200m</b>	<b>250m</b>	<b>300m</b>	<b>350m</b>	<b>400m</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>0-100m</b>	<b>100-200m</b>	<b>200-300m</b>	<b>300-400m</b>	<b>0-200m</b>	<b>200m-400m</b>	<b>Differential</b>
<b>Kaczmarek, Natalia (POL) (19)</b>	time		12.48	24.15	36.99	50.40	50.40	6 / 1											
reaction time	0.200	interval		11.67	12.84	13.41	# of strides	12.48	11.67	12.84	13.41	24.15	26.25	2.10					
velocity	8.01			8.57	7.79	7.46	194.2	8.01	8.57	7.79	7.46	8.28	7.62						
<b>Ohuruogu, Victoria (GBR) (11)</b>	time		12.50	24.29	36.93	50.50	50.50	5 / 2											
reaction time	0.243	interval		11.79	12.64	13.57	<b>PB</b>	# of strides	12.50	11.79	12.64	13.57	24.29	26.21	1.92				
velocity	8.00			8.48	7.91	7.37	192.0	8.00	8.48	7.91	7.37	8.23	7.63						
<b>Morauskaitė, Modesta (LTU)</b>	time		12.35	24.05	37.02	51.70	51.70	4 / 3											
reaction time	0.179	interval		11.70	12.97	14.68	# of strides	12.35	11.70	12.97	14.68	24.05	27.65	3.60					
velocity	8.10			8.55	7.71	6.81	191.0	8.10	8.55	7.71	6.81	8.32	7.23						
<b>Vondrová, Lada (CZE) (1999)</b>	time		12.37	24.34	37.28	51.83	51.83	3 / 4											
reaction time	0.258	interval		11.97	12.94	14.55	# of strides	12.37	11.97	12.94	14.55	24.34	27.49	3.15					
velocity	8.08			8.35	7.73	6.87	196.0	8.08	8.35	7.73	6.87	8.22	7.28						
<b>Mangione, Alice (ITA) (1997)</b>	time		12.78	24.87	38.02	52.02	52.02	7 / 5											
reaction time	0.179	interval		12.09	13.15	14.00	# of strides	12.78	12.09	13.15	14.00	24.87	27.15	2.28					
velocity	7.82			8.27	7.60	7.14	194.7	7.82	8.27	7.60	7.14	8.04	7.37						
<b>Saalberg, Eveline (NED) (199)</b>	time		12.60	24.50	37.88	52.45	52.45	8 / 6											
reaction time	0.279	interval		11.90	13.38	14.57	# of strides	12.60	11.90	13.38	14.57	24.50	27.95	3.45					
velocity	7.94			8.40	7.47	6.86	195.7	7.94	8.40	7.47	6.86	8.16	7.16						
<b>Lemmens, Silke (SUI) (1999)</b>	time		12.68	25.06	38.51	53.08	53.08	2 / 7											
reaction time	0.225	interval		12.38	13.45	14.57	# of strides	12.68	12.38	13.45	14.57	25.06	28.02	2.96					
velocity	7.89			8.08	7.43	6.86	196.0	7.89	8.08	7.43	6.86	7.98	7.14						
<b>Laus, Camille (BEL) (1993)</b>	time		13.01	25.62	39.55	54.28	54.28	1 / 8											
reaction time	0.265	interval		12.61	13.93	14.73	# of strides	13.01	12.61	13.93	14.73	25.62	28.66	3.04					
velocity	7.69			7.93	7.18	6.79	197.0	7.69	7.93	7.18	6.79	7.81	6.98						
<b>Semi-Final 1</b>	date	16-Aug-22	<i>European Athletics (2022) - european athletics championships race analysis</i>																
			<b>50m</b>	<b>100m</b>	<b>150m</b>	<b>200m</b>	<b>250m</b>	<b>300m</b>	<b>350m</b>	<b>400m</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>0-100m</b>	<b>100-200m</b>	<b>200-300m</b>	<b>300-400m</b>	<b>0-200m</b>	<b>200m-400m</b>	<b>Differential</b>
<b>Kielbasinska, Anna (POL) (11)</b>	time		12.17	23.90	36.72	50.45	50.45	3 / 1											
reaction time	0.203	interval		11.73	12.82	13.73	# of strides	12.17	11.73	12.82	13.73	23.90	26.55	2.65					
velocity	8.22			8.53	7.80	7.28	194.0	8.22	8.53	7.80	7.28	8.37	7.53						



<b>Klaver, Lieke (NED) (1998)</b>	time	12.12	23.73	36.74	50.59	50.59	6 / 2										
	reaction time	0.198	11.61	13.01	13.85		# of strides	12.12	11.61	13.01	13.85	23.73	26.86	3.13			
	interval		8.25	8.61	7.69	7.22	7.91	185.0	8.25	8.61	7.69	7.22	8.43	7.45			
<b>Baumgart-Witan, Iga (POL)</b>	time	12.72	24.38	37.11	51.17	51.17	5 / 3										
	reaction time	0.209	11.66	12.73	14.06		# of strides	12.72	11.66	12.73	14.06	24.38	26.79	2.41			
	interval		7.86	8.58	7.86	7.11	7.82	181.0	7.86	8.58	7.86	7.11	8.20	7.47			
<b>Vaičule, Gunta (LAT) (1995)</b>	time	12.68	24.29	37.06	51.25	51.25	1 / 4										
	reaction time	0.179	11.61	12.77	14.19	<b>PB</b>	# of strides	12.68	11.61	12.77	14.19	24.29	26.96	2.67			
	interval		7.89	8.61	7.83	7.05	7.80	196.5	7.89	8.61	7.83	7.05	8.23	7.42			
<b>Azevedo, Cátia (POR) (1994)</b>	time	12.80	24.83	37.78	51.42	51.42	8 / 5										
	reaction time	0.229	12.03	12.95	13.64		# of strides	12.80	12.03	12.95	13.64	24.83	26.59	1.76			
	interval		7.81	8.31	7.72	7.33	7.78	194.0	7.81	8.31	7.72	7.33	8.05	7.52			
<b>Nielsen, Laviai (GBR) (1996)</b>	time	12.42	24.28	37.22	51.53	51.53	7 / 6										
	reaction time	0.162	11.86	12.94	14.31		# of strides	12.42	11.86	12.94	14.31	24.28	27.25	2.97			
	interval		8.05	8.43	7.73	6.99	7.76	195.0	8.05	8.43	7.73	6.99	8.24	7.34			
<b>Petržilková, Tereza (CZE) (19)</b>	time	12.84	24.89	38.02	52.38	52.38	2 / 7										
	reaction time	0.222	12.05	13.13	14.36		# of strides	12.84	12.05	13.13	14.36	24.89	27.49	2.60			
	interval		7.79	8.30	7.62	6.96	7.64	193.0	7.79	8.30	7.62	6.96	8.04	7.28			
<b>Schwab, Corinna (GER) (199)</b>	time	12.37	24.11	37.16	52.70	52.70	4 / 8										
	reaction time	0.281	11.74	13.05	15.54		# of strides	12.37	11.74	13.05	15.54	24.11	28.59	4.48			
	interval		8.08	8.52	7.66	6.44	7.59	195.0	8.08	8.52	7.66	6.44	8.30	7.00			

## Heat 3

date 15-Aug-22

European Athletics (2022) - european athletics championships race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Azevedo, Cátia (POR) (1994)</b>	time	12.88	24.71	37.45	51.63	51.63	3 / 1										
	reaction time	0.284	11.83	12.74	14.18		# of strides	12.88	11.83	12.74	14.18	24.71	26.92	2.21			
	interval		7.76	8.45	7.85	7.05	7.75	196.0	7.76	8.45	7.85	7.05	8.09	7.43			
<b>Vaičule, Gunta (LAT) (1995)</b>	time	12.77	24.71	37.80	52.26	52.26	4 / 2										
	reaction time	0.249	11.94	13.09	14.46		# of strides	12.77	11.94	13.09	14.46	24.71	27.55	2.84			
	interval		7.83	8.38	7.64	6.92	7.65	191.0	7.83	8.38	7.64	6.92	8.09	7.26			
<b>Schmidt, Alica (GER) (1998)</b>	time	12.57	24.74	37.87	52.52	52.52	5 / 3										
	reaction time	0.203	12.17	13.13	14.65		# of strides	12.57	12.17	13.13	14.65	24.74	27.78	3.04			
	interval		7.96	8.22	7.62	6.83	7.62	184.2	7.96	8.22	7.62	6.83	8.08	7.20			
<b>Polinari, Anna (ITA) (1999)</b>	time	12.87	25.09	38.10	52.60	52.60	8 / 4										
	reaction time	0.188	12.22	13.01	14.50		# of strides	12.87	12.22	13.01	14.50	25.09	27.51	2.42			
	interval		7.77	8.18	7.69	6.90	7.60	188.7	7.77	8.18	7.69	6.90	7.97	7.27			
<b>Lacoste, Sokhna (FRA) (200)</b>	time	12.56	24.56	37.75	52.62	52.62	2 / 5										
	reaction time	0.316	12.00	13.19	14.87		# of strides	12.56	12.00	13.19	14.87	24.56	28.06	3.50			
	interval		7.96	8.33	7.58	6.72	7.60	206.0	7.96	8.33	7.58	6.72	8.14	7.13			
<b>Mawdsley, Sharlene (IRL) (19)</b>	time	12.81	25.05	37.96	52.63	52.63	6 / 6										
	reaction time	0.192	12.24	12.91	14.67		# of strides	12.81	12.24	12.91	14.67	25.05	27.58	2.53			
	interval		7.81	8.17	7.75	6.82	7.60	192.0	7.81	8.17	7.75	6.82	7.98	7.25			
<b>van den Broeck, Naomi (BEL)</b>	time	12.73	25.06	38.20	52.80	52.80	1 / 7										
	reaction time	0.157	12.33	13.14	14.60		# of strides	12.73	12.33	13.14	14.60	25.06	27.74	2.68			
	interval		7.86	8.11	7.61	6.85	7.58	213.5	7.86	8.11	7.61	6.85	7.98	7.21			
<b>Reyes, Norcady (GIB) (2003)</b>	time	14.02	28.04	42.96	59.59	59.59	7 / 8										
	reaction time	0.250	14.02	14.92	16.63		# of strides	14.02	14.02	14.92	16.63	28.04	31.55	3.51			
	interval		7.13	7.13	6.70	6.01	6.71		7.13	7.13	6.70	6.01	7.13	6.34			

## Heat 2

date 15-Aug-22

European Athletics (2022) - european athletics championships race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Baumgart-Witan, Iga (POL)</b>	time	12.55	24.36	36.98	51.09	51.09	5 / 1										
	reaction time	0.229	11.81	12.62	14.11		# of strides	12.55	11.81	12.62	14.11	24.36	26.73	2.37			
	interval		7.97	8.47	7.92	7.09	7.83	180.0	7.97	8.47	7.92	7.09	8.21	7.48			
<b>Brossier, Amandine (FRA) (19)</b>	time	12.44	24.23	37.01	51.26	51.26	4 / 2										
	reaction time	0.203	11.79	12.78	14.25		# of strides	12.44	11.79	12.78	14.25	24.23	27.03	2.80			
	interval		8.04	8.48	7.82	7.02	7.80	200.7	8.04	8.48	7.82	7.02	8.25	7.40			
<b>Walli, Susanne (AUT) (1996)</b>	time	12.35	24.23	37.25	51.73	51.73	3 / 3										
	reaction time	0.250	11.88	13.02	14.48		# of strides	12.35	11.88	13.02	14.48	24.23	27.50	3.27			
	interval		8.10	8.42	7.68	6.91	7.73	194.0	8.10	8.42	7.68	6.91	8.25	7.27			
<b>Laus, Camille (BEL) (1993)</b>	time	12.67	24.92	37.99	51.91	51.91	8 / 4										
	reaction time	0.248	12.25	13.07	13.92		# of strides	12.67	12.25	13.07	13.92	24.92	26.99	2.07			
	interval		7.89	8.16	7.65	7.18	7.71	198.0	7.89	8.16	7.65	7.18	8.03	7.41			
<b>Mangione, Alice (ITA) (1997)</b>	time	12.77	24.96	37.89	51.92	51.92	7 / 5										
	reaction time	0.181	12.19	12.93	14.03		# of strides	12.77	12.19	12.93	14.03	24.96	26.96	2.00			
	interval		7.83	8.20	7.73	7.13	7.70	195.0	7.83	8.20	7.73	7.13	8.01	7.42			
<b>Petržilková, Tereza (CZE) (19)</b>	time	12.76	24.97	37.97	52.35	52.35	2 / 6										
	reaction time	0.205	12.21	13.00	14.38		# of strides	12.76	12.21	13.00	14.38	24.97	27.38	2.41			
	interval		7.84	8.19	7.69	6.95	7.64	190.0	7.84	8.19	7.69	6.95	8.01	7.30			

<b>Richard, Janet (MLT) (1998)</b>	time	12.84	25.55	38.80	53.49	53.49	6 / 7										
	reaction time	0.206	interval	12.71	13.25	14.69	<b>NR PB</b>	# of strides	12.84	12.71	13.25	14.69	25.55	27.94	2.39		
	velocity	7.79	7.87	7.55	6.81	7.48		207.7	7.79	7.87	7.55	6.81	7.83	7.16			
<b>Thureson, Milja (FIN) (1994)</b>	time	12.58	24.89	38.19	53.63	53.63	1 / 8										
	reaction time	0.178	interval	12.31	13.30	15.44		# of strides	12.58	12.31	13.30	15.44	24.89	28.74	3.85		
	velocity	7.95	8.12	7.52	6.48	7.46		198.0	7.95	8.12	7.52	6.48	8.04	6.96			

**Heat 1**

date 15-Aug-22

European Athletics (2022) - european athletics championships race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Nielsen, Lavi (GBR) (1996)</b>	time	12.37	24.58	37.60	51.60	51.60	7 / 1											
	reaction time	0.175	interval	12.21	13.02	14.00		# of strides	12.37	12.21	13.02	14.00	24.58	27.02	2.44			
	velocity	8.08	8.19	7.68	7.14	7.75		207.7	8.08	8.19	7.68	7.14	8.14	7.40				
<b>Saalberg, Eveline (NED) (199)</b>	time	12.55	24.38	37.59	51.81	51.81	5 / 2											
	reaction time	0.267	interval	11.83	13.21	14.22		# of strides	12.55	11.83	13.21	14.22	24.38	27.43	3.05			
	velocity	7.97	8.45	7.57	7.03	7.72		197.7	7.97	8.45	7.57	7.03	8.20	7.29				
<b>Lemmens, Silke (SUI) (1999)</b>	time	12.39	24.42	37.60	52.27	52.27	4 / 3											
	reaction time	0.231	interval	12.03	13.18	14.67		# of strides	12.39	12.03	13.18	14.67	24.42	27.85	3.43			
	velocity	8.07	8.31	7.59	6.82	7.65		207.7	8.07	8.31	7.59	6.82	8.19	7.18				
<b>Troiani, Virginia (ITA) (1996)</b>	time	13.23	25.48	38.51	52.83	52.83	6 / 4											
	reaction time	0.247	interval	12.25	13.03	14.32		# of strides	13.23	12.25	13.03	14.32	25.48	27.35	1.87			
	velocity	7.56	8.16	7.67	6.98	7.57		197.7	7.56	8.16	7.67	6.98	7.85	7.31				
<b>Bass, Mette (FIN) (2000)</b>	time	12.54	24.69	38.19	53.02	53.02	2 / 5											
	reaction time	0.164	interval	12.15	13.50	14.83		# of strides	12.54	12.15	13.50	14.83	24.69	28.33	3.64			
	velocity	7.97	8.23	7.41	6.74	7.54		197.7	7.97	8.23	7.41	6.74	8.10	7.06				
<b>Healy, Phil (IRL) (1994)</b>	time	12.47	24.44	37.75	53.10	53.10	3 / 6											
	reaction time	0.274	interval	11.97	13.31	15.35		# of strides	12.47	11.97	13.31	15.35	24.44	28.66	4.22			
	velocity	8.02	8.35	7.51	6.51	7.53		207.7	8.02	8.35	7.51	6.51	8.18	6.98				
<b>Oppegaard, Linn (NOR) (199)</b>	time	12.93	25.38	38.69	53.29	53.29	8 / 7											
	reaction time	0.260	interval	12.45	13.31	14.60		# of strides	12.93	12.45	13.31	14.60	25.38	27.91	2.53			
	velocity	7.73	8.03	7.51	6.85	7.51		197.7	7.73	8.03	7.51	6.85	7.88	7.17				

**2022 Herculis Meeting International d'Athlétisme (Monaco, MON)****FINAL**

date 10-Aug-22

Omega Timing (2022) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
<b>Miller-Uibo, Shaunae (BAH)</b>	time	6.56	11.90	17.47	23.32	29.31	35.43	41.97	49.28	49.28	4 / 1								
	reaction time	0.146	interval	5.34	5.85	5.99	6.12	6.54	7.31		# of strides	11.90	11.42	12.11	13.85	23.32	25.96	2.64	
	velocity	7.62	9.36	8.98	8.55	8.35	8.17	7.65	6.84	8.12	173.5	8.40	8.76	8.26	7.22	8.58	7.70		
<b>McLeod, Candice (JAM) (199)</b>	time	6.79	12.36	18.06	23.97	30.04	36.30	42.85	49.87	49.87	7 / 2								
	reaction time	0.137	interval	5.57	5.91	6.07	6.26	6.55	7.02		# of strides	12.36	11.61	12.33	13.57	23.97	25.90	1.93	
	velocity	7.36	8.98	8.77	8.46	8.24	7.99	7.63	7.12	8.02	198.2	8.09	8.61	8.11	7.37	8.34	7.72		
<b>Williams, Sada (BAR) (1997)</b>	time	6.79	12.37	18.05	23.90	29.90	36.22	42.93	50.10	50.10	5 / 3								
	reaction time	0.189	interval	5.58	5.85	6.00	6.32	6.71	7.17		# of strides	12.37	11.53	12.32	13.88	23.90	26.20	2.30	
	velocity	7.36	8.96	8.80	8.55	8.33	7.91	7.45	6.97	7.98	192.0	8.08	8.67	8.12	7.20	8.37	7.63		
<b>McPherson, Stephenie Ann</b>	time	6.82	12.45	18.27	24.29	30.47	36.89	43.59	50.52	50.52	6 / 4								
	reaction time	0.138	interval	5.63	6.02	6.18	6.42	6.70	6.93		# of strides	12.45	11.84	12.60	13.63	24.29	26.23	1.94	
	velocity	7.33	8.88	8.59	8.31	8.09	7.79	7.46	7.22	7.92	186.5	8.03	8.45	7.94	7.34	8.23	7.62		
<b>Cofil, Fiordaliza (DOM) (200)</b>	time	6.74	12.43	18.25	24.31	30.51	36.80	43.39	50.55	50.55	3 / 5								
	reaction time	0.166	interval	5.69	6.06	6.20	6.29	6.59	7.16		# of strides	12.43	11.88	12.49	13.75	24.31	26.24	1.93	
	velocity	7.42	8.79	8.59	8.25	8.06	7.95	7.59	6.98	7.91	186.5	8.05	8.42	8.01	7.27	8.23	7.62		
<b>Bromfield, Junelle (JAM) (19)</b>	time	6.75	12.30	18.07	24.07	30.25	36.73	43.59	50.93	50.93	2 / 6								
	reaction time	0.194	interval	5.55	5.77	6.00	6.18	6.48	6.86	7.34		# of strides	12.30	11.77	12.66	14.20	24.07	26.86	2.79
	velocity	7.41	9.01	8.67	8.33	8.09	7.72	7.29	6.81	7.85	192.0	8.13	8.50	7.90	7.04	8.31	7.45		
<b>Whitney, Kaylin (USA) (1998)</b>	time	6.86	12.52	18.35	24.30	30.43	36.89	43.67	51.02	51.02	8 / 7								
	reaction time	0.222	interval	5.66	5.83	5.95	6.13	6.46	6.78	7.35		# of strides	12.52	11.78	12.59	14.13	24.30	26.72	2.42
	velocity	7.29	8.83	8.58	8.40	8.16	7.74	7.37	6.80	7.84	185.2	7.99	8.49	7.94	7.08	8.23	7.49		
<b>Lacoste, Sokhna (FRA) (200)</b>	time	7.06	12.79	18.81	25.08	31.64	38.45	45.63	53.21	53.21	1 / 8								
	reaction time	0.258	interval	5.73	6.02	6.27	6.56	6.81	7.18	7.58		# of strides	12.79	12.29	13.37	14.76	25.08	28.13	3.05
	velocity	7.08	8.73	8.31	7.97	7.62	7.34	6.96	6.60	7.52	186.5	7.82	8.14	7.48	6.78	7.97	7.11		

**2022 Commonwealth Games (Birmingham, GBR)****FINAL**

date 07-Aug-22

Longines Timing (2022) - commonwealth games race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Williams, Sada (BAR) (1997)</b>	time	6.6	12.3	18.2	24.1	30.0	36.2	42.8	49.90	49.90	6 / 1							
	reaction time	0.169	interval	5.70	5.90	6.20	6.60	7.10			# of strides	12.30	11.80	12.10	13.70	24.10	25.80	1.70
	velocity	7.58	8.77	8.47	8.47	8.47	8.06	7.58	7.04	8.02	194.0	8.13	8.47	8.26	7.30	8.30	7.75	
<b>Ohuruogu, Victoria (GBR) (1)</b>	time	6.8	12.5	18.3	24.4	30.6	37.1	43.7	50.72	50.72	4 / 2							
	reaction time	0.147	interval	5.70	6.10	6.20	6.50	6.60	7.02	<b>PB</b>	# of strides	12.50	11.90	12.70	13.62	24.40	26.32	1.92
	velocity	7.35	8.77	8.62	8.20	8.06	7.69	7.58	7.12	7.89	195.5	8.00	8.40	7.87	7.34	8.20	7.60	
<b>Williams, Jodie (GBR) (1993)</b>	time	6.6	12.3	18.3	24.5	30.7	37.0	43.8	51.26	51.26	9 / 3							
	reaction time	0.130	interval	5.70	6.00	6.20	6.30	6.80	7.46		# of strides	12.30	12.20	12.50	14.26	24.50	26.76	2.26

	velocity	7.58	8.77	8.33	8.06	8.06	7.94	7.35	6.70	7.80	192.0	8.13	8.20	8.00	7.01	8.16	7.47		
<b>Pipi, Ama (GBR) (1995)</b>	time	6.8	12.6	18.7	24.9	31.2	37.7	44.4	51.36	51.36	8 / 4								
	reaction time 0.204 interval		5.80	6.10	6.20	6.30	6.50	6.70	6.96		# of strides	12.60	12.30	12.80	13.66	24.90	26.46	1.56	
	velocity	7.35	8.62	8.20	8.06	7.94	7.69	7.46	7.18	7.79	196.0	7.94	8.13	7.81	7.32	8.03	7.56		
<b>Bromfield, Junelle (JAM) (19time)</b>	time	6.8	12.5	18.4	24.6	30.8	37.3	44.1	51.45	51.45	3 / 5								
	reaction time 0.188 interval		5.70	5.90	6.20	6.20	6.50	6.80	7.35		# of strides	12.50	12.10	12.70	14.15	24.60	26.85	2.25	
	velocity	7.35	8.77	8.47	8.06	8.06	7.69	7.35	6.80	7.77	185.7	8.00	8.26	7.87	7.07	8.13	7.45		
<b>Simwaka, Asimenye (MAW) (time)</b>	time	6.5	11.8	17.6	23.8	30.1	36.7	43.7	51.55	51.55	5 / 6								
	reaction time 0.190 interval		5.30	5.80	6.20	6.30	6.60	7.00	7.85	<b>NR PB</b>	# of strides	11.80	12.00	12.90	14.85	23.80	27.75	3.95	
	velocity	7.69	9.43	8.62	8.06	7.94	7.58	7.14	6.37	7.76	211.0	8.47	8.33	7.75	6.73	8.40	7.21		
<b>Constantine, Kyra (CAN) (1time)</b>	time	6.8	12.6	18.7	25.0	31.2	37.8	44.6	51.75	51.75	7 / 7								
	reaction time 0.129 interval		5.80	6.10	6.30	6.20	6.60	6.80	7.15		# of strides	12.60	12.40	12.80	13.95	25.00	26.75	1.75	
	velocity	7.35	8.62	8.20	7.94	8.06	7.58	7.35	6.99	7.73	176.2	7.94	8.06	7.81	7.17	8.00	7.48		
<b>Clark, Zoey (GBR) (1994)</b>	time	6.6	12.2	18.1	24.2	30.6	37.3	44.3	51.90	51.90	2 / 8								
	reaction time 0.169 interval		5.60	5.90	6.10	6.40	6.70	7.00	7.60		# of strides	12.20	12.00	13.10	14.60	24.20	27.70	3.50	
	velocity	7.58	8.93	8.47	8.20	7.81	7.46	7.14	6.58	7.71	204.0	8.20	8.33	7.63	6.85	8.26	7.22		
<b>Semi-Final 2</b>	date 05-Aug-22											Longines Timing (2022) - commonwealth games race analysis							
		<b>50m</b>	<b>100m</b>	<b>150m</b>	<b>200m</b>	<b>250m</b>	<b>300m</b>	<b>350m</b>	<b>400m</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>0-100m</b>	<b>100-200m</b>	<b>200-300m</b>	<b>300-400m</b>	<b>0-200m</b>	<b>200m-400m</b>	<b>Differential</b>	
<b>Williams, Sada (BAR) (1997)</b>	time	6.6	12.3	18.2	24.2	30.4	37.0	44.0	51.59	51.59	5 / 1								
	reaction time 0.202 interval		5.70	5.90	6.00	6.20	6.60	7.00	7.59		# of strides	12.30	11.90	12.80	14.59	24.20	27.39	3.19	
	velocity	7.58	8.77	8.47	8.33	8.06	7.58	7.14	6.59	7.75	195.0	8.13	8.40	7.81	6.85	8.26	7.30		
<b>Constantine, Kyra (CAN) (1time)</b>	time	6.7	12.3	18.2	24.4	30.9	37.7	44.5	51.78	51.78	7 / 2								
	reaction time 0.138 interval		5.60	5.90	6.20	6.50	6.80	6.80	7.28		# of strides	12.30	12.10	13.30	14.08	24.40	27.38	2.98	
	velocity	7.46	8.93	8.47	8.06	7.69	7.35	7.35	6.87	7.72	177.0	8.13	8.26	7.52	7.10	8.20	7.30		
<b>Williams, Jodie (GBR) (1993)</b>	time	6.6	12.1	17.9	24.0	30.4	37.2	44.2	51.98	51.98	8 / 3								
	reaction time 0.128 interval		5.50	5.80	6.10	6.40	6.80	7.00	7.78		# of strides	12.10	11.90	13.20	14.78	24.00	27.98	3.98	
	velocity	7.58	9.09	8.62	8.20	7.81	7.35	7.14	6.43	7.70	192.5	8.26	8.40	7.58	6.77	8.33	7.15		
<b>Bromfield, Junelle (JAM) (19time)</b>	time	6.6	12.2	18.1	24.2	30.7	37.5	44.6	52.18	52.18	6 / 4								
	reaction time 0.184 interval		5.60	5.90	6.10	6.50	6.80	7.10	7.58		# of strides	12.20	12.00	13.30	14.68	24.20	27.98	3.78	
	velocity	7.58	8.93	8.47	8.20	7.69	7.35	7.04	6.60	7.67	185.0	8.20	8.33	7.52	6.81	8.26	7.15		
<b>Yeargin, Nicole (GBR) (1997)</b>	time	6.7	12.5	18.4	24.6	31.1	37.8	44.7	52.24	52.24	9 / 5								
	reaction time 0.153 interval		5.80	5.90	6.20	6.50	6.70	6.90	7.54		# of strides	12.50	12.10	13.20	14.44	24.60	27.64	3.04	
	velocity	7.46	8.62	8.47	8.06	7.69	7.46	7.25	6.63	7.66	200.2	8.00	8.26	7.58	6.93	8.13	7.24		
<b>Abrams, Aliyah (GUY) (1997)</b>	time	6.7	12.4	18.4	24.7	31.2	38.0	45.1	52.82	52.82	4 / 6								
	reaction time 0.145 interval		5.70	6.00	6.30	6.50	6.80	7.10	7.72		# of strides	12.40	12.30	13.30	14.82	24.70	28.12	3.42	
	velocity	7.46	8.77	8.33	7.94	7.69	7.35	7.04	6.48	7.57	202.0	8.06	8.13	7.52	6.75	8.10	7.11		
<b>Powell, Micha (CAN) (1995)</b>	time	6.9	12.6	18.6	24.8	31.4	38.4	45.7	53.37	53.37	2 / 7								
	reaction time 0.208 interval		5.70	6.00	6.20	6.60	7.00	7.30	7.67		# of strides	12.60	12.20	13.60	14.97	24.80	28.57	3.77	
	velocity	7.25	8.77	8.33	8.06	7.58	7.14	6.85	6.52	7.49	197.0	7.94	8.20	7.35	6.68	8.06	7.00		
<b>Mutua, Veronica (KEN) (1992)</b>	time	7.0	12.8	18.9	25.3	31.9	39.1	46.6	54.80	54.80	3 / 8								
	reaction time 0.158 interval		5.80	6.10	6.40	6.60	7.20	7.50	8.20		# of strides	12.80	12.50	13.80	15.70	25.30	29.50	4.20	
	velocity	7.14	8.62	8.20	7.81	7.58	6.94	6.67	6.10	7.30	214.0	7.81	8.00	7.25	6.37	7.91	6.78		
<b>Semi-Final 1</b>	date 05-Aug-22											Longines Timing (2022) - commonwealth games race analysis							
		<b>50m</b>	<b>100m</b>	<b>150m</b>	<b>200m</b>	<b>250m</b>	<b>300m</b>	<b>350m</b>	<b>400m</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>0-100m</b>	<b>100-200m</b>	<b>200-300m</b>	<b>300-400m</b>	<b>0-200m</b>	<b>200m-400m</b>	<b>Differential</b>	
<b>Ohuruogu, Victoria (GBR) (1time)</b>	time	6.7	12.3	18.1	24.2	30.5	37.0	43.7	51.00	51.00	5 / 1								
	reaction time 0.160 interval		5.60	5.80	6.10	6.30	6.50	6.70	7.30		# of strides	12.30	11.90	12.80	14.00	24.20	26.80	2.60	
	velocity	7.46	8.93	8.62	8.20	7.94	7.69	7.46	6.85	7.84	195.0	8.13	8.40	7.81	7.14	8.26	7.46		
<b>Simwaka, Asimenye (MAW) (time)</b>	time	6.5	11.9	17.5	23.6	30.1	36.9	43.9	51.70	51.70	9 / 2								
	reaction time 0.186 interval		5.40	5.60	6.10	6.50	6.80	7.00	7.80	<b>NR PB</b>	# of strides	11.90	11.70	13.30	14.80	23.60	28.10	4.50	
	velocity	7.69	9.26	8.93	8.20	7.69	7.35	7.14	6.41	7.74	209.0	8.40	8.55	7.52	6.76	8.47	7.12		
<b>Pipi, Ama (GBR) (1995)</b>	time	6.8	12.3	18.2	24.3	30.7	37.4	44.3	51.95	51.95	6 / 3								
	reaction time 0.176 interval		5.50	5.90	6.10	6.40	6.70	6.90	7.65		# of strides	12.30	12.00	13.10	14.55	24.30	27.65	3.35	
	velocity	7.35	9.09	8.47	8.20	7.81	7.46	7.25	6.54	7.70	200.5	8.13	8.33	7.63	6.87	8.23	7.23		
<b>Clark, Zoey (GBR) (1994)</b>	time	6.7	12.2	18.3	24.5	31.0	37.7	44.5	51.99	51.99	7 / 4								
	reaction time 0.153 interval		5.50	6.10	6.20	6.50	6.70	6.80	7.49		# of strides	12.20	12.30	13.20	14.29	24.50	27.49	2.99	
	velocity	7.46	9.09	8.20	8.06	7.69	7.46	7.35	6.68	7.69	201.7	8.20	8.13	7.58	7.00	8.16	7.28		
<b>George, Patience (NGR) (199time)</b>	time	6.6	12.1	17.8	23.8	30.2	37.1	44.5	52.90	52.90	3 / 5								
	reaction time 0.183 interval		5.50	5.70	6.00	6.40	6.90	7.40	8.40		# of strides	12.10	11.70	13.30	15.80	23.80	29.10	5.30	
	velocity	7.58	9.09	8.77	8.33	7.81	7.25	6.76	5.95	7.56	200.0	8.26	8.55	7.52	6.33	8.40	6.87		
<b>Stiverne, Aiyanna (CAN) (19time)</b>	time	6.6	12.3	18.2	24.5	31.1	38.1	45.4	53.52	53.52	4 / 6								
	reaction time 0.134 interval		5.70	5.90	6.30	6.60	7.00	7.30	8.12		# of strides	12.30	12.20	13.60	15.42	24.50	29.02	4.52	
	velocity	7.58	8.77	8.47	7.94	7.58	7.14	6.85	6.16	7.47	208.0	8.13	8.20	7.35	6.49	8.16	6.89		
<b>Shida, Leni (UGA) (1994)</b>	time	6.9	12.6	18.8	25.3	32.0	39.0	46.0	53.77	53.77	8 / 7								
	reaction time 0.178 interval		5.70	6.20	6.50	6.70	7.00	7.00	7.77		# of strides	12.60	12.70	13.70	14.77	25.30	28.47	3.17	
	velocity	7.25	8.77	8.06	7.69	7.46	7.14	7.14	6.44	7.44	199.0	7.94	7.87	7.30	6.77	7.91	7.02		
<b>Jele, Lydia (BOT) (1990)</b>	time	6.7	12.4	18.3	24.6	31.3	38.6	46.3	55.09	55.09	2 / 8								
	reaction time 0.185 interval		5.70	5.90	6.30	6.70	7.30	7.70	8.79										



velocity	7.46	8.77	8.47	7.94	7.46	6.85	6.49	5.69	7.26	205.0	8.06	8.20	7.14	6.06	8.13	6.56
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**2022 Silesia Kamila Skolimowska Memorial (Chorzów, POL)****FINAL**

date 06-Aug-22

Omega Timing (2022) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Bol, Femke (NED) (2000)</b> time	6.80	12.36	18.12	24.03	30.07	36.38	42.94	49.75	49.75	4 / 1							
reaction time 0.172 interval		5.56	5.76	5.91	6.04	6.31	6.56	6.81	<b>NR PB</b>	# of strides	12.36	11.67	12.35	13.37	24.03	25.72	1.69
velocity	7.35	8.99	8.68	8.46	8.28	7.92	7.62	7.34	8.04		8.09	8.57	8.10	7.48	8.32	7.78	
<b>Kaczmarek, Natalia (POL) (1989)</b> time	6.83	12.53	18.27	24.23	30.37	36.69	43.13	49.86	49.86	6 / 2							
reaction time 0.145 interval		5.70	5.74	5.96	6.14	6.32	6.44	6.73	<b>PB</b>	# of strides	12.53	11.70	12.46	13.17	24.23	25.63	1.40
velocity	7.32	8.77	8.71	8.39	8.14	7.91	7.76	7.43	8.02		7.98	8.55	8.03	7.59	8.25	7.80	
<b>McLeod, Candice (JAM) (1988)</b> time	6.83	12.46	18.27	24.29	30.41	36.65	43.14	50.22	50.22	7 / 3							
reaction time 0.183 interval		5.63	5.81	6.02	6.12	6.24	6.49	7.08		# of strides	12.46	11.83	12.36	13.57	24.29	25.93	1.64
velocity	7.32	8.88	8.61	8.31	8.17	8.01	7.70	7.06	7.96	199.0	8.03	8.45	8.09	7.37	8.23	7.71	
<b>McPherson, Stephenie Ann (USA) (1988)</b> time	6.82	12.48	18.27	24.28	30.32	36.61	43.14	50.31	50.31	5 / 4							
reaction time 0.149 interval		5.66	5.79	6.01	6.04	6.29	6.53	7.17		# of strides	12.48	11.80	12.33	13.70	24.28	26.03	1.75
velocity	7.33	8.83	8.64	8.32	8.28	7.95	7.66	6.97	7.95		8.01	8.47	8.11	7.30	8.24	7.68	
<b>Kielbasinska, Anna (POL) (1987)</b> time	6.64	12.29	18.11	24.16	30.34	36.75	43.37	50.57	50.57	3 / 5							
reaction time 0.154 interval		5.65	5.82	6.05	6.18	6.41	6.62	7.20		# of strides	12.29	11.87	12.59	13.82	24.16	26.41	2.25
velocity	7.53	8.85	8.59	8.26	8.09	7.80	7.55	6.94	7.91		8.14	8.42	7.94	7.24	8.28	7.57	
<b>Cofil, Fiordaliza (DOM) (2000)</b> time	6.76	12.41	18.38	24.74	31.27	37.75	44.23	51.36	51.36	9 / 6							
reaction time 0.190 interval		5.65	5.97	6.36	6.53	6.48	6.48	7.13		# of strides	12.41	12.33	13.01	13.61	24.74	26.62	1.88
velocity	7.40	8.85	8.38	7.86	7.66	7.72	7.72	7.01	7.79		8.06	8.11	7.69	7.35	8.08	7.51	
<b>Schwab, Corinna (GER) (1999)</b> time	6.87	12.52	18.45	24.72	31.02	37.50	44.29	51.72	51.72	2 / 7							
reaction time 0.209 interval		5.65	5.93	6.27	6.30	6.48	6.79	7.43		# of strides	12.52	12.20	12.78	14.22	24.72	27.00	2.28
velocity	7.28	8.85	8.43	7.97	7.94	7.72	7.36	6.73	7.73		7.99	8.20	7.82	7.03	8.09	7.41	
<b>Jefferson, Kyra (USA) (1994)</b> time	6.73	12.38	18.24	24.47	30.87	37.46	44.35	51.93	51.93	1 / 8							
reaction time 0.195 interval		5.65	5.86	6.23	6.40	6.59	6.89	7.58		# of strides	12.38	12.09	12.99	14.47	24.47	27.46	2.99
velocity	7.43	8.85	8.53	8.03	7.81	7.59	7.26	6.60	7.70		8.08	8.27	7.70	6.91	8.17	7.28	

**National FINAL**

date 06-Aug-22

Omega Timing (2022) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Gacka, Kinga (POL) (2001)</b> time	6.92	12.68	18.59	24.77	31.25	38.05	45.06	52.62	52.62	6 / 1							
reaction time 0.184 interval		5.76	5.91	6.18	6.48	6.80	7.01	7.56		# of strides	12.68	12.09	13.28	14.57	24.77	27.85	3.08
velocity	7.23	8.68	8.46	8.09	7.72	7.35	7.13	6.61	7.60		7.89	8.27	7.53	6.86	8.07	7.18	
<b>Holub-Kowalik, Malgorzata (POL) (1987)</b> time	7.07	12.88	18.88	25.11	31.55	38.23	45.32	53.24	53.24	5 / 2							
reaction time 0.231 interval		5.81	6.00	6.23	6.44	6.68	7.09	7.92		# of strides	12.88	12.23	13.12	15.01	25.11	28.13	3.02
velocity	7.07	8.61	8.33	8.03	7.76	7.49	7.05	6.31	7.51		7.76	8.18	7.62	6.66	7.96	7.11	
<b>Formella, Aleksandra (POL) (1990)</b> time	7.03	12.73	18.83	25.37	32.12	38.98	46.15	53.86	53.86	4 / 3							
reaction time 0.151 interval		5.70	6.10	6.54	6.75	6.86	7.17	7.71		# of strides	12.73	12.64	13.61	14.88	25.37	28.49	3.12
velocity	7.11	8.77	8.20	7.65	7.41	7.29	6.97	6.49	7.43		7.86	7.91	7.35	6.72	7.88	7.02	
<b>Drozd, Wiktoria (POL) (2001)</b> time	7.02	12.84	18.92	25.28	31.91	38.92	46.30	54.22	54.22	7 / 4							
reaction time 0.192 interval		5.82	6.08	6.36	6.63	7.01	7.38	7.92		# of strides	12.84	12.44	13.64	15.30	25.28	28.94	3.66
velocity	7.12	8.59	8.22	7.86	7.54	7.13	6.78	6.31	7.38		7.79	8.04	7.33	6.54	7.91	6.91	
<b>Korzuch, Julia (POL) (1995)</b> time	7.23	13.33	19.56	26.05	32.74	39.73	46.89	54.51	54.51	8 / 5							
reaction time 0.135 interval		6.10	6.23	6.49	6.69	6.99	7.16	7.62		# of strides	13.33	12.72	13.68	14.78	26.05	28.46	2.41
velocity	6.92	8.20	8.03	7.70	7.47	7.15	6.98	6.56	7.34		7.50	7.86	7.31	6.77	7.68	7.03	
<b>Gaworska, Aleksandra (POL) (1990)</b> time	7.13	12.98	19.03	25.39	32.04	39.08	46.58	54.79	54.79	3 / 6							
reaction time 0.202 interval		5.85	6.05	6.36	6.65	7.04	7.50	8.21		# of strides	12.98	12.41	13.69	15.71	25.39	29.40	4.01
velocity	7.01	8.55	8.26	7.86	7.52	7.10	6.67	6.09	7.30		7.70	8.06	7.30	6.37	7.88	6.80	
<b>Gola, Marlena (POL) (1998)</b> time	7.03	13.15	19.57	26.32	33.24	40.55	48.21	56.36	56.36	9 / 7							
reaction time 0.174 interval		6.12	6.42	6.75	6.92	7.31	7.66	8.15		# of strides	13.15	13.17	14.23	15.81	26.32	30.04	3.72
velocity	7.11	8.17	7.79	7.41	7.23	6.84	6.53	6.13	7.10		7.60	7.59	7.03	6.33	7.60	6.66	
<b>Sokolowska, Julia (POL) (2000)</b> time	7.25	13.58	20.12	26.87	33.90	41.09	48.56	56.61	56.61	2 / 8							
reaction time 0.172 interval		6.33	6.54	6.75	7.03	7.19	7.47	8.05		# of strides	13.58	13.29	14.22	15.52	26.87	29.74	2.87
velocity	6.90	7.90	7.65	7.41	7.11	6.95	6.69	6.21	7.07		7.36	7.52	7.03	6.44	7.44	6.72	

**2022 Japanese National High School Championships (Naruto, JPN)****FINAL**

date 03-Aug-22

Kishima (2022) - national high school championships biomechanics data collection

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Kojima, Yuzuki (JPN) (2004)</b> time		13.25		26.15		39.53		54.04	54.04	6 / 1							
reaction time 0.206 interval				12.90		13.38		14.51	<b>PB</b>	# of strides	13.25	12.90	13.38	14.51	26.15	27.89	1.74
velocity		7.55		7.75		7.47		6.89	7.40	201.2	7.55	7.75	7.47	6.89	7.65	7.17	
<b>Nakao, Yuzuki (JPN) (2004)</b> time		13.30		26.13		39.83		55.20	55.20	5 / 2							
reaction time 0.185 interval				12.83		13.70		15.37	<b>PB</b>	# of strides	13.30	12.83	13.70	15.37	26.13	29.07	2.94
velocity		7.52		7.79		7.30		6.51	7.25	203.0	7.52	7.79	7.30	6.51	7.65	6.88	
<b>Yamauchi, Soyo (JPN) (2004)</b> time		13.28		26.16		40.01		55.26	55.26	9 / 3							
reaction time 0.224 interval				12.88		13.85		15.25		# of strides	13.28	12.88	13.85	15.25	26.16	29.10	2.94
velocity		7.53		7.76		7.22		6.56	7.24	201.0	7.53	7.76	7.22	6.56	7.65	6.87	
<b>Seta, Haruna (JPN) (2006)</b> time		13.57		26.40		40.28		55.43	55.43	2 / 4							



## Semi-Final 2

date 20-Jul-22

Timing by Seiko (2022) - world athletics championships race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Cofil, Fiordaliza (DOM) (2000)</b>	time	12.18	23.83	36.67	50.14	50.14	50.14	50.14	50.14	5 / 1							
reaction time	0.158		11.65	12.84	13.47	<b>PB</b>	# of strides	12.18	11.65	12.84	13.47	23.83	26.31	2.48			
velocity	8.21	8.58	7.79	7.42	7.98	191.0	8.21	8.58	7.79	7.42	8.39	7.60					
<b>Klaver, Lieke (NED) (1998)</b>	time	12.09	23.80	36.69	50.18	50.18	50.18	50.18	50.18	8 / 2							
reaction time	0.140		11.71	12.89	13.49	<b>NR PB</b>	# of strides	12.09	11.71	12.89	13.49	23.80	26.38	2.58			
velocity	8.27	8.54	7.76	7.41	7.97	184.0	8.27	8.54	7.76	7.41	8.40	7.58					
<b>McPherson, Stephenie Ann (1997)</b>	time	12.38	24.07	36.72	50.56	50.56	50.56	50.56	50.56	3 / 3							
reaction time	0.133		11.69	12.65	13.84	# of strides	12.38	11.69	12.65	13.84	24.07	26.49	2.42				
velocity	8.08	8.55	7.91	7.23	7.91	187.7	8.08	8.55	7.91	7.23	8.31	7.55					
<b>Yeargin, Nicole (GBR) (1997)</b>	time	12.65	24.89	37.57	51.22	51.22	51.22	51.22	51.22	2 / 4							
reaction time	0.156		12.24	12.68	13.65	# of strides	12.65	12.24	12.68	13.65	24.89	26.33	1.44				
velocity	7.91	8.17	7.89	7.33	7.81	198.0	7.91	8.17	7.89	7.33	8.04	7.60					
<b>Kaczmarek, Natalia (POL) (1997)</b>	time	12.51	24.40	37.30	51.34	51.34	51.34	51.34	51.34	4 / 5							
reaction time	0.141		11.89	12.90	14.04	# of strides	12.51	11.89	12.90	14.04	24.40	26.94	2.54				
velocity	7.99	8.41	7.75	7.12	7.79	197.2	7.99	8.41	7.75	7.12	8.20	7.42					
<b>Abrams, Aliyah (GUY) (1997)</b>	time	12.46	24.54	37.52	51.79	51.79	51.79	51.79	51.79	6 / 6							
reaction time	0.157		12.08	12.98	14.27	# of strides	12.46	12.08	12.98	14.27	24.54	27.25	2.71				
velocity	8.03	8.28	7.70	7.01	7.72	198.0	8.03	8.28	7.70	7.01	8.15	7.34					
<b>Scott, Gabby (PUR) (1997)</b>	time	12.59	24.65	37.69	51.97	51.97	51.97	51.97	51.97	7 / 7							
reaction time	0.215		12.06	13.04	14.28	# of strides	12.59	12.06	13.04	14.28	24.65	27.32	2.67				
velocity	7.94	8.29	7.67	7.00	7.70	188.7	7.94	8.29	7.67	7.00	8.11	7.32					
<b>Walli, Susanne (AUT) (1996)</b>	time	12.73	24.97	38.13	52.37	52.37	52.37	52.37	52.37	1 / 8							
reaction time	0.157		12.24	13.16	14.24	# of strides	12.73	12.24	13.16	14.24	24.97	27.40	2.43				
velocity	7.86	8.17	7.60	7.02	7.64	172.0	7.86	8.17	7.60	7.02	8.01	7.30					

## Semi-Final 1

date 20-Jul-22

Timing by Seiko (2022) - world athletics championships race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Miller-Uibo, Shaunae (BAH) (2000)</b>	time	11.78	23.43	35.71	49.55	49.55	49.55	49.55	49.55	6 / 1							
reaction time	0.129		11.65	12.28	13.84	# of strides	11.78	11.65	12.28	13.84	23.43	26.12	2.69				
velocity	8.49	8.58	8.14	7.23	8.07	172.0	8.49	8.58	8.14	7.23	8.54	7.66					
<b>McLeod, Candice (JAM) (1997)</b>	time	12.25	23.74	36.28	50.05	50.05	50.05	50.05	50.05	3 / 2							
reaction time	0.149		11.49	12.54	13.77	# of strides	12.25	11.49	12.54	13.77	23.74	26.31	2.57				
velocity	8.16	8.70	7.97	7.26	7.99	198.7	8.16	8.70	7.97	7.26	8.42	7.60					
<b>Kielbasińska, Anna (POL) (1997)</b>	time	12.19	23.93	36.57	50.65	50.65	50.65	50.65	50.65	4 / 3							
reaction time	0.158		11.74	12.64	14.08	# of strides	12.19	11.74	12.64	14.08	23.93	26.72	2.79				
velocity	8.20	8.52	7.91	7.10	7.90	196.2	8.20	8.52	7.91	7.10	8.36	7.49					
<b>Adeleke, Rhasidat (IRL) (2000)</b>	time	12.33	24.15	36.68	50.81	50.81	50.81	50.81	50.81	5 / 4							
reaction time	0.178		11.82	12.53	14.13	# of strides	12.33	11.82	12.53	14.13	24.15	26.66	2.51				
velocity	8.11	8.46	7.98	7.08	7.87	183.0	8.11	8.46	7.98	7.08	8.28	7.50					
<b>Ohuruogu, Victoria (GBR) (1997)</b>	time	12.55	24.55	37.29	50.99	50.99	50.99	50.99	50.99	8 / 5							
reaction time	0.178		12.00	12.74	13.70	# of strides	12.55	12.00	12.74	13.70	24.55	26.44	1.89				
velocity	7.97	8.33	7.85	7.30	7.84	193.2	7.97	8.33	7.85	7.30	8.15	7.56					
<b>Irby, Lynna (USA) (1998)</b>	time	12.07	24.24	36.80	51.00	51.00	51.00	51.00	51.00	7 / 6							
reaction time	0.184		12.17	12.56	14.20	# of strides	12.07	12.17	12.56	14.20	24.24	26.76	2.52				
velocity	8.29	8.22	7.96	7.04	7.84	183.0	8.29	8.22	7.96	7.04	8.25	7.47					
<b>Azevedo, Cátia (POR) (1994)</b>	time	12.75	24.73	37.66	51.79	51.79	51.79	51.79	51.79	1 / 7							
reaction time	0.169		11.98	12.93	14.13	# of strides	12.75	11.98	12.93	14.13	24.73	27.06	2.33				
velocity	7.84	8.35	7.73	7.08	7.72	183.0	7.84	8.35	7.73	7.08	8.09	7.39					
<b>de Carvalho, Tabata (BRA) (1997)</b>	time	12.40	24.64	37.89	52.42	52.42	52.42	52.42	52.42	2 / 8							
reaction time	0.203		12.24	13.25	14.53	# of strides	12.40	12.24	13.25	14.53	24.64	27.78	3.14				
velocity	8.06	8.17	7.55	6.88	7.63	183.0	8.06	8.17	7.55	6.88	8.12	7.20					

## Heat 6

date 17-Jul-22

Timing by Seiko (2022) - world athletics championships race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Kielbasińska, Anna (POL) (1997)</b>	time	12.22	24.18	37.11	50.63	50.63	50.63	50.63	50.63	7 / 1							
reaction time	0.151		11.96	12.93	13.52	# of strides	12.22	11.96	12.93	13.52	24.18	26.45	2.27				
velocity	8.18	8.36	7.73	7.40	7.90	195.0	8.18	8.36	7.73	7.40	8.27	7.56					
<b>McLeod, Candice (JAM) (1997)</b>	time	12.24	24.11	36.82	50.76	50.76	50.76	50.76	50.76	1 / 2							
reaction time	0.160		11.87	12.71	13.94	# of strides	12.24	11.87	12.71	13.94	24.11	26.65	2.54				
velocity	8.17	8.42	7.87	7.17	7.88	183.0	8.17	8.42	7.87	7.17	8.30	7.50					
<b>Ohuruogu, Victoria (GBR) (1997)</b>	time	12.67	24.78	37.40	51.07	51.07	51.07	51.07	51.07	6 / 3							
reaction time	0.190		12.11	12.62	13.67	# of strides	12.67	12.11	12.62	13.67	24.78	26.29	1.51				
velocity	7.89	8.26	7.92	7.32	7.83	193.5	7.89	8.26	7.92	7.32	8.07	7.61					
<b>Vondrová, Lada (CZE) (1999)</b>	0.199	no information available							51.55	8 / 4						# of strides	195.50
<b>McDonald, Natasha (CAN) (1997)</b>	time	12.52	24.91	37.99	52.41	52.41	52.41	52.41	52.41	5 / 5							
reaction time	0.169		12.39	13.08	14.42	# of strides	12.52	12.39	13.08	14.42	24.91	27.50	2.59				
velocity	7.99	8.07	7.65	6.93	7.63	170.0	7.99	8.07	7.65	6.93	8.03	7.27					



<b>Marinho, Tiffani (BRA) (1995)</b>	time	12.92	25.29	38.39	52.80	52.80	3 / 6												
	reaction time	0.188	interval	12.37	13.10	14.41	# of strides	12.92	12.37	13.10	14.41	25.29	27.51	2.22					
	velocity	7.74	8.08	7.63	6.94	7.58	202.0	7.74	8.08	7.63	6.94	7.91	7.27						
<b>Vallabouy, Shereen (MAS) (1995)</b>	time	12.56	25.14	38.67	53.57	53.57	2 / 7												
	reaction time	0.190	interval	12.58	13.53	14.90	# of strides	12.56	12.58	13.53	14.90	25.14	28.43	3.29					
	velocity	7.96	7.95	7.39	6.71	7.47	192.0	7.96	7.95	7.39	6.71	7.96	7.03						
<b>Elliott, Rosie (NZL) (1997)</b>	time	13.54	26.15	39.75	54.92	54.92	4 / 8												
	reaction time	0.147	interval	12.61	13.60	15.17	# of strides	13.54	12.61	13.60	15.17	26.15	28.77	2.62					
	velocity	7.39	7.93	7.35	6.59	7.28	192.0	7.39	7.93	7.35	6.59	7.65	6.95						
<b>Heat 5</b>	date	17-Jul-22	Timing by Seiko (2022) - world athletics championships race analysis																
			50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Cofil, Fiordaliza (DOM) (2000)</b>	time		12.60	24.75	37.77	51.19	51.19	7 / 1											
	reaction time	0.214	interval	12.15	13.02	13.42	# of strides	12.60	12.15	13.02	13.42	24.75	26.44	1.69					
	velocity	7.94	8.23	7.68	7.45	7.81	192.0	7.94	8.23	7.68	7.45	8.08	7.56						
<b>Diggs, Talitha (USA) (2002)</b>	time		12.39	24.65	37.75	51.54	51.54	3 / 2											
	reaction time	0.133	interval	12.26	13.10	13.79	# of strides	12.39	12.26	13.10	13.79	24.65	26.89	2.24					
	velocity	8.07	8.16	7.63	7.25	7.76	194.7	8.07	8.16	7.63	7.25	8.11	7.44						
<b>Gómez, Roxana (CUB) (1999)</b>	time		12.94	25.14	38.01	51.85	51.85	6 / 3											
	reaction time	0.190	interval	12.20	12.87	13.84	# of strides	12.94	12.20	12.87	13.84	25.14	26.71	1.57					
	velocity	7.73	8.20	7.77	7.23	7.71	188.0	7.73	8.20	7.77	7.23	7.96	7.49						
<b>Mangione, Alice (ITA) (1997)</b>	time		13.27	26.06	39.13	52.72	52.72	8 / 4											
	reaction time	0.205	interval	12.79	13.07	13.59	# of strides	13.27	12.79	13.07	13.59	26.06	26.66	0.60					
	velocity	7.54	7.82	7.65	7.36	7.59	192.0	7.54	7.82	7.65	7.36	7.67	7.50						
<b>Lemmens, Silke (SUI) (1999)</b>	time		12.80	25.50	38.74	52.86	52.86	5 / 5											
	reaction time	0.160	interval	12.70	13.24	14.12	# of strides	12.80	12.70	13.24	14.12	25.50	27.36	1.86					
	velocity	7.81	7.87	7.55	7.08	7.57	192.0	7.81	7.87	7.55	7.08	7.84	7.31						
<b>Stiverne, Aiyanna (CAN) (1995)</b>	time		12.50	25.12	38.62	53.07	53.07	4 / 6											
	reaction time	0.115	interval	12.62	13.50	14.45	# of strides	12.50	12.62	13.50	14.45	25.12	27.95	2.83					
	velocity	8.00	7.92	7.41	6.92	7.54	203.5	8.00	7.92	7.41	6.92	7.96	7.16						
<b>van Den Broeck, Naomi (BEL) (1995)</b>	time		12.77	25.57	38.88	53.16	53.16	2 / 7											
	reaction time	0.111	interval	12.80	13.31	14.28	# of strides	12.77	12.80	13.31	14.28	25.57	27.59	2.02					
	velocity	7.83	7.81	7.51	7.00	7.52	192.0	7.83	7.81	7.51	7.00	7.82	7.25						
<b>Heat 4</b>	date	17-Jul-22	Timing by Seiko (2022) - world athletics championships race analysis																
			50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Paulino, Marileidy (DOM) (1995)</b>	time		12.14	23.74	36.39	50.76	50.76	4 / 1											
	reaction time	0.173	interval	11.60	12.65	14.37	# of strides	12.14	11.60	12.65	14.37	23.74	27.02	3.28					
	velocity	8.24	8.62	7.91	6.96	7.88	173.7	8.24	8.62	7.91	6.96	8.42	7.40						
<b>Adeleke, Rhasidat (IRL) (2000)</b>	time		12.65	24.68	37.40	51.59	51.59	2 / 2											
	reaction time	0.151	interval	12.03	12.72	14.19	# of strides	12.65	12.03	12.72	14.19	24.68	26.91	2.23					
	velocity	7.91	8.31	7.86	7.05	7.75	184.0	7.91	8.31	7.86	7.05	8.10	7.43						
<b>Irby, Lynna (USA) (1998)</b>	time		12.32	24.82	37.68	51.78	51.78	6 / 3											
	reaction time	0.178	interval	12.50	12.86	14.10	# of strides	12.32	12.50	12.86	14.10	24.82	26.96	2.14					
	velocity	8.12	8.00	7.78	7.09	7.72	187.0	8.12	8.00	7.78	7.09	8.06	7.42						
<b>Vaičule, Gunta (LAT) (1995)</b>	time		12.85	25.10	38.18	52.21	52.21	3 / 4											
	reaction time	0.176	interval	12.25	13.08	14.03	# of strides	12.85	12.25	13.08	14.03	25.10	27.11	2.01					
	velocity	7.78	8.16	7.65	7.13	7.66	192.0	7.78	8.16	7.65	7.13	7.97	7.38						
<b>Gale, Lauren (CAN) (2000)</b>	time		12.30	24.55	37.66	52.46	52.46	5 / 5											
	reaction time	0.157	interval	12.25	13.11	14.80	# of strides	12.30	12.25	13.11	14.80	24.55	27.91	3.36					
	velocity	8.13	8.16	7.63	6.76	7.62	191.5	8.13	8.16	7.63	6.76	8.15	7.17						
<b>Horvat, Anita (SLO) (1996)</b>	time		12.86	25.31	38.50	52.67	52.67	7 / 6											
	reaction time	0.192	interval	12.45	13.19	14.17	# of strides	12.86	12.45	13.19	14.17	25.31	27.36	2.05					
	velocity	7.78	8.03	7.58	7.06	7.59	188.0	7.78	8.03	7.58	7.06	7.90	7.31						
<b>Uko, Imaobong Nse (NGR) (2000)</b>	time		12.76	25.22	38.50	52.80	52.80	8 / 7											
	reaction time	0.203	interval	12.46	13.28	14.30	# of strides	12.76	12.46	13.28	14.30	25.22	27.58	2.36					
	velocity	7.84	8.03	7.53	6.99	7.58	194.0	7.84	8.03	7.53	6.99	7.93	7.25						
<b>Heat 3</b>	date	17-Jul-22	Timing by Seiko (2022) - world athletics championships race analysis																
			50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Williams, Sada (BAR) (1997)</b>	time		12.54	24.46	36.84	51.05	51.05	6 / 1											
	reaction time	0.169	interval	11.92	12.38	14.21	# of strides	12.54	11.92	12.38	14.21	24.46	26.59	2.13					
	velocity	7.97	8.39	8.08	7.04	7.84	194.7	7.97	8.39	8.08	7.04	8.18	7.52						
<b>Morauskaitė, Modesta Justė (LTU) (1995)</b>	time		12.49	24.36	37.07	51.27	51.27	5 / 2											
	reaction time	0.136	interval	11.87	12.71	14.20	# of strides	12.49	11.87	12.71	14.20	24.36	26.91	2.55					
	velocity	8.01	8.42	7.87	7.04	7.80	192.5	8.01	8.42	7.87	7.04	8.21	7.43						
<b>Pipi, Ama (GBR) (1995)</b>	time		12.43	24.23	37.12	51.32	51.32	7 / 3											
	reaction time	0.171	interval	11.80	12.89	14.20	# of strides	12.43	11.80	12.89	14.20	24.23	27.09	2.86					
	velocity	8.05	8.47	7.76	7.04	7.79	196.7	8.05	8.47	7.76	7.04	8.25	7.38						
<b>Young, Charokee (JAM) (2000)</b>	time		12.70	24.80	37.57	51.84	51.84	4 / 4											
	reaction time	0.199	interval	12.10	12.77	14.27	# of strides	12.70	12.10	12.77	14.27	24.80	27.04	2.24					

velocity	7.87	8.26	7.83	7.01	7.72	197.7	7.87	8.26	7.83	7.01	8.06	7.40		
<b>Becker, Sophie (IRL) (1997)</b> time	12.18	24.20	37.64	52.24	52.24	8 / 5								
reaction time 0.151 interval		12.02	13.44	14.60		# of strides	12.18	12.02	13.44	14.60	24.20	28.04	3.84	
velocity	8.21	8.32	7.44	6.85	7.66		8.21	8.32	7.44	6.85	8.26	7.13		
<b>Laus, Camille (BEL) (1993)</b> time	12.91	25.46	38.60	52.56	52.56	3 / 6								
reaction time 0.185 interval		12.55	13.14	13.96		# of strides	12.91	12.55	13.14	13.96	25.46	27.10	1.64	
velocity	7.75	7.97	7.61	7.16	7.61		7.75	7.97	7.61	7.16	7.86	7.38		
<b>Saalberg, Eveline (NED) (199)</b> time	12.76	25.00	38.37	52.59	52.59	2 / 7								
reaction time 0.190 interval		12.24	13.37	14.22		# of strides	12.76	12.24	13.37	14.22	25.00	27.59	2.59	
velocity	7.84	8.17	7.48	7.03	7.61		7.84	8.17	7.48	7.03	8.00	7.25		

## Heat 2

date 17-Jul-22

Timing by Seiko (2022) - world athletics championships race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>McPherson, Stephanie Ann (time)</b>	12.38	24.27	36.73	50.15	50.15	4 / 1											
reaction time 0.123 interval		11.89	12.46	13.42		# of strides	12.38	11.89	12.46	13.42	24.27	25.88	1.61				
velocity	8.08	8.41	8.03	7.45	7.98		186.2	8.08	8.41	8.03	7.45	8.24	7.73				
<b>Kaczmarek, Natalia (POL) (19)</b> time	12.76	24.41	37.11	50.21	50.21	8 / 2											
reaction time 0.152 interval		11.65	12.70	13.10		# of strides	12.76	11.65	12.70	13.10	24.41	25.80	1.39				
velocity	7.84	8.58	7.87	7.63	7.97		197.5	7.84	8.58	7.87	7.63	8.19	7.75				
<b>Klaver, Lieke (NED) (1998)</b> time	12.29	24.06	36.90	50.24	50.24	2 / 3											
reaction time 0.161 interval		11.77	12.84	13.34	<b>NR PB</b>	# of strides	12.29	11.77	12.84	13.34	24.06	26.18	2.12				
velocity	8.14	8.50	7.79	7.50	7.96		184.0	8.14	8.50	7.79	7.50	8.31	7.64				
<b>Yeargin, Nicole (GBR) (1997)</b> time	12.48	24.32	37.22	51.17	51.17	7 / 4											
reaction time 0.150 interval		11.84	12.90	13.95		# of strides	12.48	11.84	12.90	13.95	24.32	26.85	2.53				
velocity	8.01	8.45	7.75	7.17	7.82		195.7	8.01	8.45	7.75	7.17	8.22	7.45				
<b>Azevedo, Cátia (POR) (1994)</b> time	12.94	24.77	37.65	51.55	51.55	6 / 5											
reaction time 0.181 interval		11.83	12.88	13.90		# of strides	12.94	11.83	12.88	13.90	24.77	26.78	2.01				
velocity	7.73	8.45	7.76	7.19	7.76		195.5	7.73	8.45	7.76	7.19	8.07	7.47				
<b>de Carvalho, Tabata (BRA) (time)</b>	12.57	24.52	37.85	52.17	52.17	3 / 6											
reaction time 0.158 interval		11.95	13.33	14.32		# of strides	12.57	11.95	13.33	14.32	24.52	27.65	3.13				
velocity	7.96	8.37	7.50	6.98	7.67		182.0	7.96	8.37	7.50	6.98	8.16	7.23				
<b>Mingilishi, Niddy (ZAM) (200)</b> time	12.84	25.06	38.38	52.84	52.84	5 / 7											
reaction time 0.163 interval		12.22	13.32	14.46		# of strides	12.84	12.22	13.32	14.46	25.06	27.78	2.72				
velocity	7.79	8.18	7.51	6.92	7.57		192.0	7.79	8.18	7.51	6.92	7.98	7.20				

## Heat 1

date 17-Jul-22

Timing by Seiko (2022) - world athletics championships race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Miller-Uibo, Shaunae (BAH) time</b>	12.03	24.13	36.84	51.10	51.10	7 / 1											
reaction time 0.123 interval		12.10	12.71	14.26		# of strides	12.03	12.10	12.71	14.26	24.13	26.97	2.84				
velocity	8.31	8.26	7.87	7.01	7.83		175.0	8.31	8.26	7.87	7.01	8.29	7.42				
<b>Abrams, Aliyah (GUY) (1997)</b> time	12.51	24.81	37.86	51.98	51.98	6 / 2											
reaction time 0.148 interval		12.30	13.05	14.12		# of strides	12.51	12.30	13.05	14.12	24.81	27.17	2.36				
velocity	7.99	8.13	7.66	7.08	7.70		196.2	7.99	8.13	7.66	7.08	8.06	7.36				
<b>Scott, Gabby (PUR) (1997)</b> time	12.90	25.22	38.11	52.05	52.05	4 / 3											
reaction time 0.182 interval		12.32	12.89	13.94		# of strides	12.90	12.32	12.89	13.94	25.22	26.83	1.61				
velocity	7.75	8.12	7.76	7.17	7.68		189.0	7.75	8.12	7.76	7.17	7.93	7.45				
<b>Walli, Susanne (AUT) (1996)</b> time	12.50	24.66	37.82	52.18	52.18	3 / 4											
reaction time 0.170 interval		12.16	13.16	14.36		# of strides	12.50	12.16	13.16	14.36	24.66	27.52	2.86				
velocity	8.00	8.22	7.60	6.96	7.67		197.2	8.00	8.22	7.60	6.96	8.11	7.27				
<b>Morán, Paola (MEX) (1997)</b> time	12.46	24.87	37.78	52.28	52.28	5 / 5											
reaction time 0.190 interval		12.41	12.91	14.50		# of strides	12.46	12.41	12.91	14.50	24.87	27.41	2.54				
velocity	8.03	8.06	7.75	6.90	7.65		192.7	8.03	8.06	7.75	6.90	8.04	7.30				
<b>Ellis, Kendall (USA) (1996)</b> time	12.70	25.32	38.31	52.55	52.55	8 / 6											
reaction time 0.187 interval		12.62	12.99	14.24		# of strides	12.70	12.62	12.99	14.24	25.32	27.23	1.91				
velocity	7.87	7.92	7.70	7.02	7.61		189.0	7.87	7.92	7.70	7.02	7.90	7.34				
<b>Coetzee, Miranda (RSA) (19)</b> time	12.43	27.48	38.02	53.30	53.30	2 / 7											
reaction time 0.137 interval		15.05	10.54	15.28		# of strides	12.43	15.05	10.54	15.28	27.48	25.82	-1.66				
velocity	8.05	6.64	9.49	6.54	7.50		197.0	8.05	6.64	9.49	6.54	7.28	7.75				

## 2022 Bauhaus Galan (Stockholm, SWE)

## FINAL

date 30-Jun-22

Omega Timing (2022) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Kielbasinska, Anna (POL) (19)</b> time	6.63	12.25	17.96	23.91	30.15	36.60	43.35	50.60	50.60	6 / 1							
reaction time 0.155 interval		5.62	5.71	5.95	6.24	6.45	6.75	7.25		# of strides	12.25	11.66	12.69	14.00	23.91	26.69	2.78
velocity	7.54	8.90	8.76	8.40	8.01	7.75	7.41	6.90	7.91		8.16	8.58	7.88	7.14	8.36	7.49	
<b>Klaver, Lieke (NED) (1998)</b> time	6.75	12.24	17.83	23.74	29.99	36.53	43.39	50.96	50.96	7 / 2							
reaction time 0.165 interval		5.49	5.59	5.91	6.25	6.54	6.86	7.57		# of strides	12.24	11.50	12.79	14.43	23.74	27.22	3.48
velocity	7.41	9.11	8.94	8.46	8.00	7.65	7.29	6.61	7.85		8.17	8.70	7.82	6.93	8.42	7.35	
<b>Pipi, Ama (GBR) (1995)</b> time	6.90	12.50	18.26	24.28	30.69	37.40	44.28	51.80	51.80	3 / 3							
reaction time 0.191 interval		5.60	5.76	6.02	6.41	6.71	6.88	7.52		# of strides	12.50	11.78	13.12	14.40	24.28	27.52	3.24
velocity	7.25	8.93	8.68	8.31	7.80	7.45	7.27	6.65	7.72		8.00	8.49	7.62	6.94	8.24	7.27	

<b>Saalberg, Eveline (NED) (199)</b>	time	6.94	12.53	18.20	24.32	30.91	37.81	45.00	52.92	52.92	5 / 4							
	reaction time	0.209	5.59	5.67	6.12	6.59	6.90	7.19	7.92		# of strides	12.53	11.79	13.49	15.11	24.32	28.60	4.28
	interval velocity		7.20	8.94	8.82	8.17	7.59	7.25	6.95	6.31	7.56	7.98	8.48	7.41	6.62	8.22	6.99	
<b>Hjelmer, Moa (SWE) (1990)</b>	time	6.81	12.53	18.39	24.57	31.15	38.08	45.37	53.44	53.44	4 / 5							
	reaction time	0.165	5.72	5.86	6.18	6.58	6.93	7.29	8.07		# of strides	12.53	12.04	13.51	15.36	24.57	28.87	4.30
	interval velocity		7.34	8.74	8.53	8.09	7.60	7.22	6.86	6.20	7.49	7.98	8.31	7.40	6.51	8.14	6.93	
<b>Frobe, Linnéa (SWE) (1998)</b>	time	7.05	12.99	19.15	25.56	32.29	39.21	46.66	54.87	54.87	8 / 6							
	reaction time	0.216	5.94	6.16	6.41	6.73	6.92	7.45	8.21		# of strides	12.99	12.57	13.65	15.66	25.56	29.31	3.75
	interval velocity		7.09	8.42	8.12	7.80	7.43	7.23	6.71	6.09	7.29	7.70	7.96	7.33	6.39	7.82	6.82	
<b>Risberg Thoor, Josephine (SWE) (1999)</b>	time	7.27	13.38	19.56	25.96	32.80	39.76	47.19	55.39	55.39	1 / 7							
	reaction time	0.213	6.11	6.18	6.40	6.84	6.96	7.43	8.20		# of strides	13.38	12.58	13.80	15.63	25.96	29.43	3.47
	interval velocity		6.88	8.18	8.09	7.81	7.31	7.18	6.73	6.10	7.22	7.47	7.95	7.25	6.40	7.70	6.80	
<b>Helander, Klara (SWE) (1995)</b>	time	7.26	13.47	19.78	26.34	33.18	40.12	47.52	55.45	55.45	2 / 8							
	reaction time	0.150	6.21	6.31	6.56	6.84	6.94	7.40	7.93		# of strides	13.47	12.87	13.78	15.33	26.34	29.11	2.77
	interval velocity		6.89	8.05	7.92	7.62	7.31	7.20	6.76	6.31	7.21	7.42	7.77	7.26	6.52	7.59	6.87	

**2022 Meeting de Paris (Paris, FRA)****FINAL**

date 18-Jun-22

Omega Timing (2022) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Miller-Uibo, Shaunae (BAH) (1999)</b>	time	6.53	11.92	17.54	23.44	29.56	35.82	42.44	50.10	50.10	4 / 1							
	reaction time	0.142	5.39	5.62	5.90	6.12	6.26	6.62	7.66		# of strides	11.92	11.52	12.38	14.28	23.44	26.66	3.22
	interval velocity		7.66	9.28	8.90	8.47	8.17	7.99	7.55	6.53	7.98	175.0	8.39	8.68	8.08	7.00	8.53	7.50
<b>Kaczmarek, Natalia (POL) (1999)</b>	time	6.79	12.37	18.02	23.99	30.27	36.77	43.39	50.24	50.24	5 / 2							
	reaction time	0.162	5.58	5.65	5.97	6.28	6.50	6.62	6.85		# of strides	12.37	11.62	12.78	13.47	23.99	26.25	2.26
	interval velocity		7.36	8.96	8.85	8.38	7.96	7.69	7.55	7.30	7.96	193.0	8.08	8.61	7.82	7.42	8.34	7.62
<b>Kielbasinska, Anna (POL) (1999)</b>	time	6.54	12.16	17.92	23.86	30.05	36.52	43.18	50.28	50.28	6 / 3							
	reaction time	0.165	5.62	5.76	5.94	6.19	6.47	6.66	7.10	PB	# of strides	12.16	11.70	12.66	13.76	23.86	26.42	2.56
	interval velocity		7.65	8.90	8.68	8.42	8.08	7.73	7.51	7.04	7.96	194.0	8.22	8.55	7.90	7.27	8.38	7.57
<b>Cofil, Fiordaliza (DOM) (2000)</b>	time	6.77	12.39	18.19	24.23	30.51	37.01	43.69	50.76	50.76	7 / 4							
	reaction time	0.191	5.62	5.80	6.04	6.28	6.50	6.68	7.07		# of strides	12.39	11.84	12.78	13.75	24.23	26.53	2.30
	interval velocity		7.39	8.90	8.62	8.28	7.96	7.69	7.49	7.07	7.88	193.2	8.07	8.45	7.82	7.27	8.25	7.54
<b>Klaver, Lieke (NED) (1998)</b>	time	6.55	11.92	17.47	23.34	29.59	36.16	43.12	50.80	50.80	8 / 5							
	reaction time	0.157	5.37	5.55	5.87	6.25	6.57	6.96	7.68	PB	# of strides	11.92	11.42	12.82	14.64	23.34	27.46	4.12
	interval velocity		7.63	9.31	9.01	8.52	8.00	7.61	7.18	6.51	7.87	189.7	8.39	8.76	7.80	6.83	8.57	7.28
<b>Święty-Ersetic, Justyna (POL) (1999)</b>	time	7.02	12.70	18.48	24.44	30.67	37.19	43.90	51.05	51.05	2 / 6							
	reaction time	0.226	5.68	5.78	5.96	6.23	6.52	6.71	7.15		# of strides	12.70	11.74	12.75	13.86	24.44	26.61	2.17
	interval velocity		7.12	8.80	8.65	8.39	8.03	7.67	7.45	6.99	7.84	212.0	7.87	8.52	7.84	7.22	8.18	7.52
<b>Brossier, Amandine (FRA) (1999)</b>	time	6.78	12.52	18.45	24.57	30.85	37.37	44.28	51.78	51.78	3 / 7							
	reaction time	0.147	5.74	5.93	6.12	6.28	6.52	6.91	7.50		# of strides	12.52	12.05	12.80	14.41	24.57	27.21	2.64
	interval velocity		7.37	8.71	8.43	8.17	7.96	7.67	7.24	6.67	7.72	201.5	7.99	8.30	7.81	6.94	8.14	7.35
<b>Grebo, Shana (FRA) (2000)</b>	time	6.75	12.39	18.33	24.45	30.87	37.60	44.55	51.98	51.98	1 / 8							
	reaction time	0.166	5.64	5.94	6.12	6.42	6.73	6.95	7.43		# of strides	12.39	12.06	13.15	14.38	24.45	27.53	3.08
	interval velocity		7.41	8.87	8.42	8.17	7.79	7.43	7.19	6.73	7.70	8.07	8.29	7.60	6.95	8.18	7.26	

**2022 FBK Games (Hengelo, NED)****FINAL**

date 06-Jun-22

Omega Timing (2022) - continental tour race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Gómez, Roxana (CUB) (1999)</b>	time	6.8	12.4	18.3	24.1	30.3	36.8	43.6	51.18	51.18	6 / 1							
	reaction time	0.169	5.60	5.90	5.80	6.20	6.50	6.80	7.58		# of strides	12.40	11.70	12.70	14.38	24.10	27.08	2.98
	interval velocity		7.35	8.93	8.47	8.62	8.06	7.69	7.35	6.60	7.82	187.5	8.06	8.55	7.87	6.95	8.30	7.39
<b>Klaver, Lieke (NED) (1998)</b>	time	6.5	12.0	17.7	23.7	30.0	36.7	43.7	51.34	51.34	5 / 2							
	reaction time	0.186	5.50	5.70	6.00	6.30	6.70	7.00	7.64		# of strides	12.00	11.70	13.00	14.64	23.70	27.64	3.94
	interval velocity		7.69	9.09	8.77	8.33	7.94	7.46	7.14	6.54	7.79	189.0	8.33	8.55	7.69	6.83	8.44	7.24
<b>Yeargen, Nicole (GBR) (1997)</b>	time	6.8	12.4	18.3	24.4	30.7	37.2	44.1	51.56	51.56	7 / 3							
	reaction time	0.183	5.60	5.90	6.10	6.30	6.50	6.90	7.46		# of strides	12.40	12.00	12.80	14.36	24.40	27.16	2.76
	interval velocity		7.35	8.93	8.47	8.20	7.94	7.69	7.25	6.70	7.76	8.06	8.33	7.81	6.96	8.20	7.36	
<b>Schwab, Corinna (GER) (1999)</b>	time	6.6	12.1	17.9	23.9	30.1	36.8	43.9	51.76	51.76	3 / 4							
	reaction time	0.201	5.50	5.80	6.00	6.20	6.70	7.10	7.86		# of strides	12.10	11.80	12.90	14.96	23.90	27.86	3.96
	interval velocity		7.58	9.09	8.62	8.33	8.06	7.46	7.04	6.36	7.73	8.26	8.47	7.75	6.68	8.37	7.18	
<b>Saalberg, Eveline (NED) (1999)</b>	time	6.9	12.5	18.3	24.4	30.7	37.6	44.5	51.80	51.80	4 / 5							
	reaction time	0.181	5.60	5.80	6.10	6.30	6.90	6.90	7.30		# of strides	12.50	11.90	13.20	14.20	24.40	27.40	3.00
	interval velocity		7.25	8.93	8.62	8.20	7.94	7.25	7.25	6.85	7.72	8.00	8.40	7.58	7.04	8.20	7.30	
<b>Jonathas, Wadeline (USA) (1999)</b>	time	6.7	12.4	18.4	24.6	30.9	37.5	44.5	52.17	52.17	2 / 6							
	reaction time	0.180	5.70	6.00	6.20	6.30	6.60	7.00	7.67		# of strides	12.40	12.20	12.90	14.67	24.60	27.57	2.97
	interval velocity		7.46	8.77	8.33	8.06	7.94	7.58	7.14	6.52	7.67	8.06	8.20	7.75	6.82	8.13	7.25	
<b>Marinho, Tiffani (BRA) (1999)</b>	time	6.9	12.7	18.5	25.0	31.5	38.2	45.3	52.90	52.90	8 / 7							
	reaction time	0.234	5.80	5.80	6.50	6.50	6.70	7.10	7.60		# of strides	12.70	12.30	13.20	14.70	25.00	27.90	2.90
	interval velocity		7.25	8.62	8.62	7.69	7.69	7.46	7.04	6.58	7.56	7.87	8.13	7.58	6.80	8.00	7.17	
<b>Walli, Susanne (AUT) (1996)</b>	time	6.9	12.4	18.2	24.4	30.8	37.7	45.0	53.02	53.02	1 / 8							



reaction time	0.170	interval	5.50	5.80	6.20	6.40	6.90	7.30	8.02		# of strides	12.40	12.00	13.30	15.32	24.40	28.62	4.22
velocity	7.25	9.09	8.62	8.06	7.81	7.25	6.85	6.23	7.54			8.06	8.33	7.52	6.53	8.20	6.99	

**2022 Meeting International Mohammed VI d'Athlétisme (Rabat, MAR)****FINAL**

date 05-Jun-22

Omega Timing (2022) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Paulino, Marileidy (DOM) (19)</b>	6.64	12.26	18.00	23.89	30.04	36.52	43.05	50.10	50.10	5 / 1							
reaction time	0.171	interval	5.62	5.74	5.89	6.15	6.48	6.53	7.05	# of strides	12.26	11.63	12.63	13.58	23.89	26.21	2.32
velocity	7.53	8.90	8.71	8.49	8.13	7.72	7.66	7.09	7.98	173.0	8.16	8.60	7.92	7.36	8.37	7.63	
<b>Williams, Sada (BAR) (1997)</b>	6.73	12.44	18.26	24.27	30.40	36.89	43.56	50.74	50.74	7 / 2							
reaction time	0.182	interval	5.71	5.82	6.01	6.13	6.49	6.67	7.18	# of strides	12.44	11.83	12.62	13.85	24.27	26.47	2.20
velocity	7.43	8.76	8.59	8.32	8.16	7.70	7.50	6.96	7.88	193.5	8.04	8.45	7.92	7.22	8.24	7.56	
<b>McPherson, Stephanie Ann (time)</b>	6.57	12.09	17.79	23.76	30.11	36.78	43.53	51.37	51.37	6 / 3							
reaction time	0.134	interval	5.52	5.70	5.97	6.35	6.67	6.75	7.84	# of strides	12.09	11.67	13.02	14.59	23.76	27.61	3.85
velocity	7.61	9.06	8.77	8.38	7.87	7.50	7.41	6.38	7.79	190.0	8.27	8.57	7.68	6.85	8.42	7.24	
<b>Becker, Sophie (IRL) (1997)</b>	6.53	12.29	18.28	24.63	31.23	37.94	44.62	51.84	51.84	4 / 4							
reaction time	0.156	interval	5.76	5.99	6.35	6.60	6.71	6.68	7.22	# of strides	12.29	12.34	13.31	13.90	24.63	27.21	2.58
velocity	7.66	8.68	8.35	7.87	7.58	7.45	7.49	6.93	7.72		8.14	8.10	7.51	7.19	8.12	7.35	
<b>Vondrová, Lada (CZE) (1999)</b>	6.74	12.46	18.49	24.76	31.13	37.84	44.65	52.07	52.07	2 / 5							
reaction time	0.205	interval	5.72	6.03	6.27	6.37	6.71	6.81	7.42	# of strides	12.46	12.30	13.08	14.23	24.76	27.31	2.55
velocity	7.42	8.74	8.29	7.97	7.85	7.45	7.34	6.74	7.68		8.03	8.13	7.65	7.03	8.08	7.32	
<b>Azevedo, Cátia (POR) (1994)</b>	6.97	12.74	18.58	24.76	31.22	38.03	44.86	52.23	52.23	3 / 6							
reaction time	0.194	interval	5.77	5.84	6.18	6.46	6.81	6.83	7.37	# of strides	12.74	12.02	13.27	14.20	24.76	27.47	2.71
velocity	7.17	8.67	8.56	8.09	7.74	7.34	7.32	6.78	7.66		7.85	8.32	7.54	7.04	8.08	7.28	
<b>Healy, Phil (IRL) (1994)</b>	6.80	12.66	18.65	24.87	31.30	37.96	44.72	52.28	52.28	8 / 7							
reaction time	0.140	interval	5.86	5.99	6.22	6.43	6.66	6.76	7.56	# of strides	12.66	12.21	13.09	14.32	24.87	27.41	2.54
velocity	7.35	8.53	8.35	8.04	7.78	7.51	7.40	6.61	7.65	206.2	7.90	8.19	7.64	6.98	8.04	7.30	
<b>Laus, Camille (BEL) (1993)</b>	6.87	12.71	18.74	25.09	31.68	38.64	45.50	52.77	52.77	1 / 8							
reaction time	0.216	interval	5.84	6.03	6.35	6.59	6.96	6.86	7.27	# of strides	12.71	12.38	13.55	14.13	25.09	27.68	2.59
velocity	7.28	8.56	8.29	7.87	7.59	7.18	7.29	6.88	7.58		7.87	8.08	7.38	7.08	7.97	7.23	

**2022 Shimane High School Championships (Izumo, JPN)****FINAL**

date 26-May-22

Shimizu (2022) - shimane high school championships 2022 - biomechanics data analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Tsugu, Kaneko (JPN)</b>		13.82		27.80		43.09		59.78	59.78	7 / 1							
reaction time		interval		13.98		15.29		16.69		# of strides	13.82	13.98	15.29	16.69	27.80	31.98	4.18
velocity		7.24		7.15		6.54		5.99	6.69		7.24	7.15	6.54	5.99	7.19	6.25	
<b>Sakakibara, Sora (JPN)</b>		13.82		27.87		43.41		60.03	60.03	5 / 2							
reaction time		interval		14.05		15.54		16.62		# of strides	13.82	14.05	15.54	16.62	27.87	32.16	4.29
velocity		7.24		7.12		6.44		6.02	6.66		7.24	7.12	6.44	6.02	7.18	6.22	
<b>Saito, Yui (JPN)</b>		14.57		29.18		44.77		60.71	60.71	4 / 3							
reaction time		interval		14.61		15.59		15.94		# of strides	14.57	14.61	15.59	15.94	29.18	31.53	2.35
velocity		6.86		6.84		6.41		6.27	6.59		6.86	6.84	6.41	6.27	6.85	6.34	
<b>Yamao, Mizuki (JPN)</b>		14.35		28.53		44.00		61.29	61.29	6 / 4							
reaction time		interval		14.18		15.47		17.29		# of strides	14.35	14.18	15.47	17.29	28.53	32.76	4.23
velocity		6.97		7.05		6.46		5.78	6.53		6.97	7.05	6.46	5.78	7.01	6.11	
<b>Moriyoshi, Hinata (JPN)</b>		14.25		28.30		43.97		61.52	61.52	9 / 5							
reaction time		interval		14.05		15.67		17.55		# of strides	14.25	14.05	15.67	17.55	28.30	33.22	4.92
velocity		7.02		7.12		6.38		5.70	6.50		7.02	7.12	6.38	5.70	7.07	6.02	
<b>Matsumoto, Haruka (JPN)</b>		14.43		29.13		44.98		62.20	62.20	2 / 6							
reaction time		interval		14.70		15.85		17.22		# of strides	14.43	14.70	15.85	17.22	29.13	33.07	3.94
velocity		6.93		6.80		6.31		5.81	6.43		6.93	6.80	6.31	5.81	6.87	6.05	
<b>Matsui, Minata (JPN)</b>		14.27		28.77		44.96		62.70	62.70	3 / 7							
reaction time		interval		14.50		16.19		17.74		# of strides	14.27	14.50	16.19	17.74	28.77	33.93	5.16
velocity		7.01		6.90		6.18		5.64	6.38		7.01	6.90	6.18	5.64	6.95	5.89	
<b>Kanayama, Aoi (JPN)</b>		15.05		29.93		45.69		63.50	63.50	8 / 8							
reaction time		interval		14.88		15.76		17.81		# of strides	15.05	14.88	15.76	17.81	29.93	33.57	3.64
velocity		6.64		6.72		6.35		5.61	6.30		6.64	6.72	6.35	5.61	6.68	5.96	

**2022 Müller Birmingham Diamond League (Birmingham, GBR)****FINAL**

date 21-May-22

Omega Timing (2022) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Clark, Zoey (GBR) (1994)</b>	6.6	12.1	18.0	24.1	30.6	37.5	44.4	51.88	51.88	4 / 1							
reaction time	0.159	interval	5.50	5.90	6.10	6.50	6.90	6.90	7.48	# of strides	12.10	12.00	13.40	14.38	24.10	27.78	3.68
velocity	7.58	9.09	8.47	8.20	7.69	7.25	7.25	6.68	7.71		8.26	8.33	7.46	6.95	8.30	7.20	
<b>Pipi, Ama (GBR) (1995)</b>	6.8	12.3	18.3	24.4	30.9	37.6	44.7	52.57	52.57	5 / 2							
reaction time	0.177	interval	5.50	6.00	6.10	6.50	6.70	7.10	7.87	# of strides	12.30	12.10	13.20	14.97	24.40	28.17	3.77
velocity	7.35	9.09	8.33	8.20	7.69	7.46	7.04	6.35	7.61		8.13	8.26	7.58	6.68	8.20	7.10	
<b>John, Yemi Mary (GBR) (200)</b>	6.9	12.5	18.5	24.7	31.2	38.1	45.3	53.04	53.04	3 / 3							
reaction time	0.157	interval	5.60	6.00	6.20	6.50	6.90	7.20	7.74	# of strides	12.50	12.20	13.40	14.94	24.70	28.34	3.64
velocity	7.25	8.93	8.33	8.06	7.69	7.25	6.94	6.46	7.54		8.00	8.20	7.46	6.69	8.10	7.06	

<b>Beckford, Lily (GBR) (1997)</b> time	6.8	12.4	18.7	25.0	31.6	38.4	45.5	53.46	53.46	7 / 4							
reaction time 0.212 interval		5.60	6.30	6.30	6.60	6.80	7.10	7.96		# of strides	12.40	12.60	13.40	15.06	25.00	28.46	3.46
velocity	7.35	8.93	7.94	7.94	7.58	7.35	7.04	6.28	7.48		8.06	7.94	7.46	6.64	8.00	7.03	
<b>Williams, Hannah (GBR) (1997)</b> time	6.6	12.2	18.3	24.7	31.4	38.4	45.7	53.72	53.72	6 / 5							
reaction time 0.152 interval		5.60	6.10	6.40	6.70	7.00	7.30	8.02	PB	# of strides	12.20	12.50	13.70	15.32	24.70	29.02	4.32
velocity	7.58	8.93	8.20	7.81	7.46	7.14	6.85	6.23	7.45		8.20	8.00	7.30	6.53	8.10	6.89	
<b>Hillyard, Amy (GBR) (1995)</b> time	6.9	12.5	18.6	25.0	31.8	38.9	46.4	54.31	54.31	8 / 6							
reaction time 0.158 interval		5.60	6.10	6.40	6.80	7.10	7.50	7.91		# of strides	12.50	12.50	13.90	15.41	25.00	29.31	4.31
velocity	7.25	8.93	8.20	7.81	7.35	7.04	6.67	6.32	7.37		8.00	8.00	7.19	6.49	8.00	6.82	
<b>McAulay, Carys (GBR) (1998)</b> time	6.9	12.5	18.4	24.6	31.1	38.2	45.8	54.35	54.35	2 / 7							
reaction time 0.160 interval		5.60	5.90	6.20	6.50	7.10	7.60	8.55		# of strides	12.50	12.10	13.60	16.15	24.60	29.75	5.15
velocity	7.25	8.93	8.47	8.06	7.69	7.04	6.58	5.85	7.36		8.00	8.26	7.35	6.19	8.13	6.72	

**2022 Doha Diamond League (Doha, QAT)****Final**

date 13-May-22

Omega Timing (2022) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Paulino, Marileidy (DOM) (1997)</b> time	6.6	12.3	18.4	24.6	30.9	37.3	43.9	51.20	51.20	4 / 1							
reaction time 0.209 interval		5.70	6.10	6.20	6.30	6.40	6.60	7.30		# of strides	12.30	12.30	12.70	13.90	24.60	26.60	2.00
velocity	7.58	8.77	8.20	8.06	7.94	7.81	7.58	6.85	7.81		179.2	8.13	8.13	7.87	7.19	8.13	7.52
<b>McPherson, Stephanie Ann (USA) (1997)</b> time	6.6	12.5	18.7	24.9	31.2	37.7	44.4	51.69	51.69	6 / 2							
reaction time 0.128 interval		5.90	6.20	6.20	6.30	6.50	6.70	7.29		# of strides	12.50	12.40	12.80	13.99	24.90	26.79	1.89
velocity	7.58	8.47	8.06	8.06	7.94	7.69	7.46	6.86	7.74		191.7	8.00	8.06	7.81	7.15	8.03	7.47
<b>Miller-Uibo, Shaunae (BAH) (2019)</b> time	6.4	10.7	18.1	24.7	31.1	37.5	44.1	51.84	51.84	5 / 3							
reaction time 0.143 interval		4.30	7.40	6.60	6.40	6.40	6.60	7.74		# of strides	10.70	14.00	12.80	14.34	24.70	27.14	2.44
velocity	7.81	11.63	6.76	7.58	7.81	7.81	7.58	6.46	7.72		180.0	9.35	7.14	7.81	6.97	8.10	7.37
<b>Williams, Sada (BAR) (1997)</b> time	6.6	12.6	18.8	25.1	31.5	38.0	44.7	52.09	52.09	7 / 4							
reaction time 0.186 interval		6.00	6.20	6.30	6.40	6.50	6.70	7.39		# of strides	12.60	12.50	12.90	14.09	25.10	26.99	1.89
velocity	7.58	8.33	8.06	7.94	7.81	7.69	7.46	6.77	7.68		196.2	7.94	8.00	7.75	7.10	7.97	7.41
<b>McLeod, Candice (JAM) (1997)</b> time	6.7	12.4	18.6	25.0	31.4	38.0	44.9	52.37	52.37	3 / 5							
reaction time 0.183 interval		5.70	6.20	6.40	6.40	6.60	6.90	7.47		# of strides	12.40	12.60	13.00	14.37	25.00	27.37	2.37
velocity	7.46	8.77	8.06	7.81	7.81	7.58	7.25	6.69	7.64		207.5	8.06	7.94	7.69	6.96	8.00	7.31
<b>Kaczmarek, Natalia (POL) (1997)</b> time	6.8	12.6	19.1	25.7	31.7	38.4	45.6	52.54	52.54	1 / 6							
reaction time 0.148 interval		5.80	6.50	6.60	6.00	6.70	7.20	6.94		# of strides	12.60	13.10	12.70	14.14	25.70	26.84	1.14
velocity	7.35	8.62	7.69	7.58	8.33	7.46	6.94	7.20	7.61		7.94	7.63	7.87	7.07	7.78	7.45	
<b>Ellis, Kendall (USA) (1996)</b> time	6.7	12.7	19.2	25.8	32.4	39.0	45.5	52.58	52.58	2 / 7							
reaction time 0.223 interval		6.00	6.50	6.60	6.60	6.60	6.50	7.08		# of strides	12.70	13.10	13.20	13.58	25.80	26.78	0.98
velocity	7.46	8.33	7.69	7.58	7.58	7.58	7.69	7.06	7.61		7.87	7.63	7.58	7.36	7.75	7.47	
<b>Irby, Lynna (USA) (1998)</b> time	6.6	12.6	18.8	25.2	31.7	38.3	45.2	52.86	52.86	8 / 8							
reaction time 0.222 interval		6.00	6.20	6.40	6.50	6.60	6.90	7.66		# of strides	12.60	12.60	13.10	14.56	25.20	27.66	2.46
velocity	7.58	8.33	8.06	7.81	7.69	7.58	7.25	6.53	7.57		7.94	7.94	7.63	6.87	7.94	7.23	

**2021 Japanese U18 National Championships (Matsuyama, JPN) (300m)****Final**

date 23-Oct-21

Yamanaka (2021) - race analysis of men's and women's 400m and 300m races in 2021 competition

	50m	100m	150m	200m	250m	300m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Takino, Miku (JPN) (2005)</b> time	7.00	12.87	18.91	25.23	31.81	38.63	38.63	5 / 1							
reaction time 0.204 interval		5.87	6.04	6.32	6.58	6.82	PB	# of strides	12.87	12.36	13.40		25.23		
velocity	7.14	8.52	8.28	7.91	7.60	7.33	7.77		148.7	7.77	8.09	7.46	7.93		
<b>Sato, Shihori (JPN) (2005)</b> time	6.88	12.58	18.54	24.91	31.56	38.69	38.69	9 / 2							
reaction time 0.211 interval		5.70	5.96	6.37	6.65	7.13	PB	# of strides	12.58	12.33	13.78		24.91		
velocity	7.27	8.77	8.39	7.85	7.52	7.01	7.75		149.5	7.95	8.11	7.26	8.03		
<b>Nakao, Yuzuki (JPN) (2004)</b> time	7.03	12.90	18.93	25.30	32.00	39.15	39.15	8 / 3							
reaction time 0.199 interval		5.87	6.03	6.37	6.70	7.15	PB	# of strides	12.90	12.40	13.85		25.30		
velocity	7.11	8.52	8.29	7.85	7.46	6.99	7.66		152.0	7.75	8.06	7.22	7.91		
<b>Yamauchi, Soyo (JPN) (2004)</b> time	7.16	13.05	19.17	25.60	32.28	39.35	39.35	7 / 4							
reaction time 0.225 interval		5.89	6.12	6.43	6.68	7.07		# of strides	13.05	12.55	13.75		25.60		
velocity	6.98	8.49	8.17	7.78	7.49	7.07	7.62		152.7	7.66	7.97	7.27	7.81		
<b>Akasaka, Mirei (JPN) (2004)</b> time	7.08	12.85	18.79	25.13	31.89	39.40	39.40	6 / 5							
reaction time 0.196 interval		5.77	5.94	6.34	6.76	7.51		# of strides	12.85	12.28	14.27		25.13		
velocity	7.06	8.67	8.42	7.89	7.40	6.66	7.61		152.2	7.78	8.14	7.01	7.96		
<b>Kojima, Yuzuki (JPN) (2004)</b> time	7.12	13.18	19.39	25.87	32.55	39.70	39.70	4 / 6							
reaction time 0.176 interval		6.06	6.21	6.48	6.68	7.15		# of strides	13.18	12.69	13.83		25.87		
velocity	7.02	8.25	8.05	7.72	7.49	6.99	7.56		153.0	7.59	7.88	7.23	7.73		

**2021 Weltklasse (Zürich, SUI)****Final**

date 09-Sep-21

Omega Timing (2021) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Hayes, Quanera (USA) (1992)</b> time	6.7	12.4	18.3	24.3	30.3	36.4	42.9	49.88	49.88	7 / 1							
reaction time 0.188 interval		5.70	5.90	6.00	6.00	6.10	6.50	6.98		# of strides	12.40	11.90	12.10	13.48	24.30	25.58	1.28
velocity	7.46	8.77	8.47	8.33	8.33	8.20	7.69	7.16	8.02		8.06	8.40	8.26	7.42	8.23	7.82	
<b>Paulino, Marileidy (DOM) (1997)</b> time	6.8	12.5	18.3	24.3	30.3	36.5	43.0	49.96	49.96	5 / 2							

reaction time	0.179	interval	5.70	5.80	6.00	6.00	6.20	6.50	6.96		# of strides	12.50	11.80	12.20	13.46	24.30	25.66	1.36
velocity	7.35		8.77	8.62	8.33	8.33	8.06	7.69	7.18	8.01	176.5	8.00	8.47	8.20	7.43	8.23	7.79	
<b>Williams, Sada (BAR) (1997)</b>	time	6.8	12.5	18.4	24.4	30.4	36.7	43.2	50.24	50.24	6 / 3							
reaction time	0.164	interval	5.70	5.90	6.00	6.00	6.30	6.50	7.04		# of strides	12.50	11.90	12.30	13.54	24.40	25.84	1.44
velocity	7.35		8.77	8.47	8.33	8.33	7.94	7.69	7.10	7.96	188.5	8.00	8.40	8.13	7.39	8.20	7.74	
<b>McPherson, Stephenie (JAM)</b>	time	6.8	12.4	18.2	24.1	30.1	36.5	43.2	50.25	50.25	4 / 4							
reaction time	0.130	interval	5.60	5.80	5.90	6.00	6.40	6.70	7.05		# of strides	12.40	11.70	12.40	13.75	24.10	26.15	2.05
velocity	7.35		8.93	8.62	8.47	8.33	7.81	7.46	7.09	7.96	187.2	8.06	8.55	8.06	7.27	8.30	7.65	
<b>McLeod, Candice (JAM) (1995)</b>	time	7.0	12.9	19.0	25.1	31.3	37.6	44.1	50.96	50.96	8 / 5							
reaction time	0.152	interval	5.90	6.10	6.10	6.20	6.30	6.50	6.86		# of strides	12.90	12.20	12.50	13.36	25.10	25.86	0.76
velocity	7.14		8.47	8.20	8.20	8.06	7.94	7.69	7.29	7.85	177.5	7.75	8.20	8.00	7.49	7.97	7.73	
<b>Kaczmarek, Natalia (POL) (1995)</b>	time	7.0	12.8	18.6	24.6	30.7	37.2	44.0	51.00	51.00	3 / 6							
reaction time	0.186	interval	5.80	5.80	6.00	6.10	6.50	6.80	7.00		# of strides	12.80	11.80	12.60	13.80	24.60	26.40	1.80
velocity	7.14		8.62	8.62	8.33	8.20	7.69	7.35	7.14	7.84	178.1	7.81	8.47	7.94	7.25	8.13	7.58	
<b>Klaver, Lieke (NED) (1998)</b>	time	6.7	12.1	17.8	23.7	30.0	36.6	43.6	51.09	51.09	1 / 7							
reaction time	0.199	interval	5.40	5.70	5.90	6.30	6.60	7.00	7.49		# of strides	12.10	11.60	12.90	14.49	23.70	27.39	3.69
velocity	7.46		9.26	8.77	8.47	7.94	7.58	7.14	6.68	7.83	182.6	8.26	8.62	7.75	6.90	8.44	7.30	
<b>Whitney, Kaylin (USA) (1998)</b>	time	6.8	12.4	18.2	24.1	30.3	36.9	43.8	51.19	51.19	2 / 8							
reaction time	0.198	interval	5.60	5.80	5.90	6.20	6.60	6.90	7.39		# of strides	12.40	11.70	12.80	14.29	24.10	27.09	2.99
velocity	7.35		8.93	8.62	8.47	8.06	7.58	7.25	6.77	7.81	180.6	8.06	8.55	7.81	7.00	8.30	7.38	

**B FINAL**

date 09-Sep-21

Omega Timing (2021) - diamond league race analysis

			50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>luel, Amalie (NOR) (1994)</b>	time	7.0	12.8	18.7	24.9	31.3	37.9	44.7	51.64	51.64	6 / 1								
reaction time	0.164	interval	5.80	5.90	6.20	6.40	6.60	6.80	6.94	NR PB	# of strides	12.80	12.10	13.00	13.74	24.90	26.74	1.84	
velocity	7.14		8.62	8.47	8.06	7.81	7.58	7.35	7.20	7.75	177.5	7.81	8.26	7.69	7.28	8.03	7.48		
<b>Schwab, Corinna (GER) (1999)</b>	time	6.7	12.2	17.9	24.0	30.4	37.1	44.1	51.69	51.69	3 / 2								
reaction time	0.171	interval	5.50	5.70	6.10	6.40	6.70	7.00	7.59		# of strides	12.20	11.80	13.10	14.59	24.00	27.69	3.69	
velocity	7.46		9.09	8.77	8.20	7.81	7.46	7.14	6.59	7.74	182.0	8.20	8.47	7.63	6.85	8.33	7.22		
<b>Azevedo, Cátia (POR) (1994)</b>	time	7.0	12.8	18.6	24.8	31.1	37.7	44.8	52.42	52.42	5 / 3								
reaction time	0.150	interval	5.80	5.80	6.20	6.30	6.60	7.10	7.62		# of strides	12.80	12.00	12.90	14.72	24.80	27.62	2.82	
velocity	7.14		8.62	8.62	8.06	7.94	7.58	7.04	6.56	7.63	178.1	7.81	8.33	7.75	6.79	8.06	7.24		
<b>Logvynenko, Alina (UKR) (1999)</b>	time	7.1	13.0	19.0	25.2	31.6	38.2	45.1	52.94	52.94	1 / 4								
reaction time	0.173	interval	5.90	6.00	6.20	6.40	6.60	6.90	7.84		# of strides	13.00	12.20	13.00	14.74	25.20	27.74	2.54	
velocity	7.04		8.47	8.33	8.06	7.81	7.58	7.25	6.38	7.56	179.0	7.69	8.20	7.69	6.78	7.94	7.21		
<b>Lemmens, Silke (SUI) (1999)</b>	time	6.8	12.5	18.4	24.7	31.2	38.1	45.3	52.98	52.98	4 / 5								
reaction time	0.176	interval	5.70	5.90	6.30	6.50	6.90	7.20	7.68		# of strides	12.50	12.20	13.40	14.88	24.70	28.28	3.58	
velocity	7.35		8.77	8.47	7.94	7.69	7.25	6.94	6.51	7.55	180.0	8.00	8.20	7.46	6.72	8.10	7.07		
<b>Šerkšniene, Agnė (LTU) (1998)</b>	time	6.8	12.6	18.6	24.9	31.4	38.2	45.3	52.99	52.99	7 / 6								
reaction time	0.193	interval	5.80	6.00	6.30	6.50	6.80	7.10	7.69		# of strides	12.60	12.30	13.30	14.79	24.90	28.09	3.19	
velocity	7.35		8.62	8.33	7.94	7.69	7.35	7.04	6.50	7.55	179.4	7.94	8.13	7.52	6.76	8.03	7.12		
<b>Giger, Yasmin (SUI) (1999)</b>	time	7.1	13.1	19.4	25.8	32.3	38.9	45.8	53.03	53.03	2 / 7								
reaction time	0.164	interval	6.00	6.30	6.40	6.50	6.60	6.90	7.23		# of strides	13.10	12.70	13.10	14.13	25.80	27.23	1.43	
velocity	7.04		8.33	7.94	7.81	7.69	7.58	7.25	6.92	7.54	176.3	7.63	7.87	7.63	7.08	7.75	7.34		
<b>Werro, Audrey (SUI) (2004)</b>	time	7.2	12.9	18.8	25.2	32.0	39.1	46.4	53.88	53.88	8 / 8								
reaction time	0.160	interval	5.70	5.90	6.40	6.80	7.10	7.30	7.48		# of strides	12.90	12.30	13.90	14.78	25.20	28.68	3.48	
velocity	6.94		8.77	8.47	7.81	7.35	7.04	6.85	6.68	7.42	177.5	7.75	8.13	7.19	6.77	7.94	6.97		

**2021 Memorial van Damme (Brussels, BEL)****FINAL**

date 03-Sep-21

Omega Timing (2021) - diamond league race analysis

			50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Laus, Camille (BEL) (1993)</b>	time	6.9	12.6	18.6	24.8	31.3	38.0	44.9	52.34	52.34	5 / 1								
reaction time	0.221	interval	5.70	6.00	6.20	6.50	6.70	6.90	7.44		# of strides	12.60	12.20	13.20	14.34	24.80	27.54	2.74	
velocity	7.25		8.77	8.33	8.06	7.69	7.46	7.25	6.72	7.64	179.4	7.94	8.20	7.58	6.97	8.06	7.26		
<b>Saalberg, Eveline (NED) (1999)</b>	time	7.0	12.6	18.4	24.5	31.0	37.8	44.9	52.38	52.38	4 / 2								
reaction time	0.225	interval	5.60	5.80	6.10	6.50	6.80	7.10	7.48		# of strides	12.60	11.90	13.30	14.58	24.50	27.88	3.38	
velocity	7.14		8.93	8.62	8.20	7.69	7.35	7.04	6.68	7.64	179.4	7.94	8.40	7.52	6.86	8.16	7.17		
<b>Bouma, Andrea (NED) (1999)</b>	time	6.9	12.5	18.3	24.4	31.0	37.9	45.4	53.39	53.39	6 / 3								
reaction time	0.219	interval	5.60	5.80	6.10	6.60	6.90	7.50	7.99		# of strides	12.50	11.90	13.50	15.49	24.40	28.99	4.59	
velocity	7.25		8.93	8.62	8.20	7.58	7.25	6.67	6.26	7.49	195.0	8.00	8.40	7.41	6.46	8.20	6.90		
<b>Couckuyt, Paulien (BEL) (1999)</b>	time	6.8	12.6	18.6	24.9	31.6	38.5	45.8	53.68	53.68	7 / 4								
reaction time	0.175	interval	5.80	6.00	6.30	6.70	6.90	7.30	7.88		# of strides	12.60	12.30	13.60	15.18	24.90	28.78	3.88	
velocity	7.35		8.62	8.33	7.94	7.46	7.25	6.85	6.35	7.45	198.0	7.94	8.13	7.35	6.59	8.03	6.95		
<b>de Witte, Laura (NED) (1995)</b>	time	6.8	12.5	18.4	24.7	31.3	38.4	46.1	54.84	54.84	2 / 5								
reaction time	0.188	interval	5.70	5.90	6.30	6.60	7.10	7.70	8.74		# of strides	12.50	12.20	13.70	16.44	24.70	30.14	5.44	
velocity	7.35		8.77	8.47	7.94	7.58	7.04	6.49	5.72	7.29	180.0	8.00	8.20	7.30	6.08	8.10	6.64		
<b>Depuydt, Manon (BEL) (1999)</b>	time	6.9	12.6	18.7	25.0	31.9	39.2	47.0	55.37	55.37	3 / 6								
reaction time	0.145	interval	5.70	6.10	6.30	6.90	7.30	7.80	8.37		# of strides	12.60	12.40	14.20	16.17	25.00	30.37	5.37	
velocity	7.25		8.77	8.20	7.94	7.25	6.85	6.41	5.97	7.22	179.4	7.94	8.06	7.04	6.18	8.00	6.59		



<b>Hanssens, Ilana (BEL) (2002)</b> time	7.1	12.9	19.1	25.7	32.6	39.9	47.7	56.27	56.27	1 / 7							
reaction time 0.169 interval		5.80	6.20	6.60	6.90	7.30	7.80	8.57		# of strides	12.90	12.80	14.20	16.37	25.70	30.57	4.87
velocity	7.04	8.62	8.06	7.58	7.25	6.85	6.41	5.83	7.11		7.75	7.81	7.04	6.11	7.78	6.54	
<b>Ellsworth, Maureen (NED) (1time)</b> time	7.1	12.9	18.9	25.3	32.0	39.1	46.6			8 / --							
reaction time 0.197 interval		5.80	6.00	6.40	6.70	7.10	7.50		DQ	# of strides	12.90	12.40	13.80		25.30		
velocity	7.04	8.62	8.33	7.81	7.46	7.04	6.67				7.75	8.06	7.25		7.91		

**2021 Meeting de Paris (Paris, FRA)****FINAL**

date 28-Aug-21

Omega Timing (2021) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Paulino, Marileidy (DOM) (19time)</b> time	6.8	12.5	18.4	24.4	30.4	36.6	43.1	50.12	50.12	5 / 1							
reaction time 0.196 interval		5.70	5.90	6.00	6.00	6.20	6.50	7.02		# of strides	12.50	11.90	12.20	13.52	24.40	25.72	1.32
velocity	7.35	8.77	8.47	8.33	8.33	8.06	7.69	7.12	7.98	176.0	8.00	8.40	8.20	7.40	8.20	7.78	
<b>Williams, Sada (BAR) (1997)</b> time	6.7	12.4	18.3	24.3	30.3	36.5	43.2	50.30	50.30	8 / 2							
reaction time 0.162 interval		5.70	5.90	6.00	6.00	6.20	6.70	7.10		# of strides	12.40	11.90	12.20	13.80	24.30	26.00	1.70
velocity	7.46	8.77	8.47	8.33	8.33	8.06	7.46	7.04	7.95	190.2	8.06	8.40	8.20	7.25	8.23	7.69	
<b>Felix, Allyson (USA) (1985)</b> time	6.5	11.9	17.9	24.0	30.3	36.6	43.2	50.47	50.47	6 / 3							
reaction time 0.171 interval		5.40	6.00	6.10	6.30	6.30	6.60	7.27		# of strides	11.90	12.10	12.60	13.87	24.00	26.47	2.47
velocity	7.69	9.26	8.33	8.20	7.94	7.94	7.58	6.88	7.93	184.7	8.40	8.26	7.94	7.21	8.33	7.56	
<b>Boi, Femke (NED) (2000)</b> time	6.9	12.6	18.5	24.6	30.7	37.0	43.6	50.59	50.59	4 / 4							
reaction time 0.205 interval		5.70	5.90	6.10	6.10	6.30	6.60	6.99		# of strides	12.60	12.00	12.40	13.59	24.60	25.99	1.39
velocity	7.25	8.77	8.47	8.20	8.20	7.94	7.58	7.15	7.91	189.7	7.94	8.33	8.06	7.36	8.13	7.70	
<b>Hayes, Quanera (USA) (1992)</b> time	6.6	12.3	18.5	24.6	30.7	37.0	43.6	50.81	50.81	7 / 5							
reaction time 0.167 interval		5.70	6.20	6.10	6.10	6.30	6.60	7.21		# of strides	12.30	12.30	12.40	13.81	24.60	26.21	1.61
velocity	7.58	8.77	8.06	8.20	8.20	7.94	7.58	6.93	7.87	178.5	8.13	8.13	8.06	7.24	8.13	7.63	
<b>Kaczmarek, Natalia (POL) (1time)</b> time	6.9	12.6	18.6	24.7	31.1	37.6	44.3	51.32	51.32	1 / 6							
reaction time 0.184 interval		5.70	6.00	6.10	6.40	6.50	6.70	7.02		# of strides	12.60	12.10	12.90	13.72	24.70	26.62	1.92
velocity	7.25	8.77	8.33	8.20	7.81	7.69	7.46	7.12	7.79	196.0	7.94	8.26	7.75	7.29	8.10	7.51	
<b>McLeod, Candice (JAM) (19time)</b> time	6.7	12.3	18.2	24.3	30.5	36.9	43.7	51.41	51.41	2 / 7							
reaction time 0.160 interval		5.60	5.90	6.10	6.20	6.40	6.80	7.71		# of strides	12.30	12.00	12.60	14.51	24.30	27.11	2.81
velocity	7.46	8.93	8.47	8.20	8.06	7.81	7.35	6.49	7.78	206.0	8.13	8.33	7.94	6.89	8.23	7.38	
<b>Brossier, Amandine (FRA) (time)</b> time	6.8	12.7	18.9	25.2	31.5	38.1	45.1	52.79	52.79	3 / 8							
reaction time 0.189 interval		5.90	6.20	6.30	6.30	6.60	7.00	7.69		# of strides	12.70	12.50	12.90	14.69	25.20	27.59	2.39
velocity	7.35	8.47	8.06	7.94	7.94	7.58	7.14	6.50	7.58	204.0	7.87	8.00	7.75	6.81	7.94	7.25	

**2021 Athletissima (Lausanne, SUI)****FINAL**

date 26-Aug-21

Omega Timing (2021) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Paulino, Marileidy (DOM) (19time)</b> time	6.9	12.5	18.2	24.2	30.2	36.6	43.3	50.40	50.40	6 / 1							
reaction time 0.189 interval		5.60	5.70	6.00	6.00	6.40	6.70	7.10		# of strides	12.50	11.70	12.40	13.80	24.20	26.20	2.00
velocity	7.25	8.93	8.77	8.33	8.33	7.81	7.46	7.04	7.94	177.0	8.00	8.55	8.06	7.25	8.26	7.63	
<b>Williams, Sada (BAR) (1997)</b> time	6.7	12.4	18.2	24.2	30.3	36.8	43.6	50.77	50.77	7 / 2							
reaction time 0.162 interval		5.70	5.80	6.00	6.10	6.50	6.80	7.17		# of strides	12.40	11.80	12.60	13.97	24.20	26.57	2.37
velocity	7.46	8.77	8.62	8.33	8.20	7.69	7.35	6.97	7.88	180.6	8.06	8.47	7.94	7.16	8.26	7.53	
<b>Hayes, Quanera (USA) (1992)</b> time	6.7	12.4	18.3	24.4	30.5	36.9	43.7	51.06	51.06	4 / 3							
reaction time 0.167 interval		5.70	5.90	6.10	6.10	6.40	6.80	7.36		# of strides	12.40	12.00	12.50	14.16	24.40	26.66	2.26
velocity	7.46	8.77	8.47	8.20	8.20	7.81	7.35	6.79	7.83	180.6	8.06	8.33	8.00	7.06	8.20	7.50	
<b>Kaczmarek, Natalia (POL) (1time)</b> time	6.9	12.5	18.3	24.5	30.8	37.5	44.2	51.10	51.10	8 / 4							
reaction time 0.167 interval		5.60	5.80	6.20	6.30	6.70	6.70	6.90		# of strides	12.50	12.00	13.00	13.60	24.50	26.60	2.10
velocity	7.25	8.93	8.62	8.06	7.94	7.46	7.46	7.25	7.83	180.0	8.00	8.33	7.69	7.35	8.16	7.52	
<b>McLeod, Candice (JAM) (19time)</b> time	6.8	12.4	18.1	24.1	30.4	36.9	43.7	51.26	51.26	5 / 5							
reaction time 0.158 interval		5.60	5.70	6.00	6.30	6.50	6.80	7.56		# of strides	12.40	11.70	12.80	14.36	24.10	27.16	3.06
velocity	7.35	8.93	8.77	8.33	7.94	7.69	7.35	6.61	7.80	203.0	8.06	8.55	7.81	6.96	8.30	7.36	
<b>Klaver, Lieke (NED) (1998)</b> time	6.7	12.3	18.2	24.4	30.8	37.5	44.5	51.73	51.73	2 / 6							
reaction time 0.170 interval		5.60	5.90	6.20	6.40	6.70	7.00	7.23		# of strides	12.30	12.10	13.10	14.23	24.40	27.33	2.93
velocity	7.46	8.93	8.47	8.06	7.81	7.46	7.14	6.92	7.73	181.3	8.13	8.26	7.63	7.03	8.20	7.32	
<b>Williams, Jodie (GBR) (1993)</b> time	6.8	12.5	18.4	24.6	30.9	37.5	44.5	52.12	52.12	3 / 7							
reaction time 0.165 interval		5.70	5.90	6.20	6.30	6.60	7.00	7.62		# of strides	12.50	12.10	12.90	14.62	24.60	27.52	2.92
velocity	7.35	8.77	8.47	8.06	7.94	7.58	7.14	6.56	7.67	180.0	8.00	8.26	7.75	6.84	8.13	7.27	
<b>Pellaud, Rachel (SUI) (1995)</b> time	7.2	13.2	19.4	25.9	32.5	39.3	46.2	53.52	53.52	1 / 8							
reaction time 0.182 interval		6.00	6.20	6.50	6.60	6.80	6.90	7.32		# of strides	13.20	12.70	13.40	14.22	25.90	27.62	1.72
velocity	6.94	8.33	8.06	7.69	7.58	7.35	7.25	6.83	7.47	175.8	7.58	7.87	7.46	7.03	7.72	7.24	

**B Race**

date 26-Aug-21

Omega Timing (2021) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Miller, Polina (ANA) (2000)</b> time	6.7	12.3	18.3	24.4	30.6	37.2	44.3	52.16	52.16	4 / 1							
reaction time 0.139 interval		5.60	6.00	6.10	6.20	6.60	7.10	7.86		# of strides	12.30	12.10	12.80	14.96	24.40	27.76	3.36
velocity	7.46	8.93	8.33	8.20	8.06	7.58	7.04	6.36	7.67	181.3	8.13	8.26	7.81	6.68	8.20	7.20	
<b>Šerkšniene, Agnė (LTU) (198time)</b> time	6.7	12.5	18.9	25.4	31.7	38.4	45.5	53.22	53.22	6 / 2							
reaction time 0.173 interval		5.80	6.40	6.50	6.30	6.70	7.10	7.72		# of strides	12.50	12.90	13.00	14.82	25.40	27.82	2.42
velocity	7.46	8.62	7.81	7.69	7.94	7.46	7.04	6.48	7.52	180.0	8.00	7.75	7.69	6.75	7.87	7.19	

<b>Giger, Yasmin (SUI) (1999)</b>	time	7.1	13.1	19.5	26.0	32.4	39.1	46.1	53.39	53.39	7 / 3							
	reaction time 0.148		6.00	6.40	6.50	6.40	6.70	7.00	7.29		# of strides	13.10	12.90	13.10	14.29	26.00	27.39	1.39
	velocity	7.04	8.33	7.81	7.69	7.81	7.46	7.14	6.86	7.49		7.63	7.75	7.63	7.00	7.69	7.30	
<b>Lemmens, Silke (SUI) (1999)</b>	time	6.8	12.6	18.9	25.3	31.9	38.7	45.8	53.39	53.39	5 / 4							
	reaction time 0.175		5.80	6.30	6.40	6.60	6.80	7.10	7.59		# of strides	12.60	12.70	13.40	14.69	25.30	28.09	2.79
	velocity	7.35	8.62	7.94	7.81	7.58	7.35	7.04	6.59	7.49		7.94	7.87	7.46	6.81	7.91	7.12	
<b>King, Sarah (SUI) (1996)</b>	time	6.9	12.9	19.4	26.1	32.8	39.8	46.8	54.01	54.01	3 / 5							
	reaction time 0.163		6.00	6.50	6.70	6.70	7.00	7.00	7.21		# of strides	12.90	13.20	13.70	14.21	26.10	27.91	1.81
	velocity	7.25	8.33	7.69	7.46	7.46	7.14	7.14	6.93	7.41		7.75	7.58	7.30	7.04	7.66	7.17	
<b>Senn, Giulia (SUI) (2001)</b>	time	7.2	13.4	20.1	26.7	33.5	40.6	47.6	55.06	55.06	8 / 6							
	reaction time 0.154		6.20	6.70	6.60	6.80	7.10	7.00	7.46		# of strides	13.40	13.30	13.90	14.46	26.70	28.36	1.66
	velocity	6.94	8.06	7.46	7.58	7.35	7.04	7.14	6.70	7.26		7.46	7.52	7.19	6.92	7.49	7.05	
<b>Wernli, Lena (SUI) (2001)</b>	time	7.1	13.0	19.6	26.2	32.9	40.1	47.5	55.49	55.49	2 / 7							
	reaction time 0.151		5.90	6.60	6.60	6.70	7.20	7.40	7.99		# of strides	13.00	13.20	13.90	15.39	26.20	29.29	3.09
	velocity	7.04	8.47	7.58	7.58	7.46	6.94	6.76	6.26	7.21		7.69	7.58	7.19	6.50	7.63	6.83	
<b>Niederberger, Julia (SUI) (201)</b>	time	7.3	13.4	20.1	27.1	34.0	41.2	48.2	55.54	55.54	1 / 8							
	reaction time 0.199		6.10	6.70	7.00	6.90	7.20	7.00	7.34		# of strides	13.40	13.70	14.10	14.34	27.10	28.44	1.34
	velocity	6.85	8.20	7.46	7.14	7.25	6.94	7.14	6.81	7.20		7.46	7.30	7.09	6.97	7.38	7.03	

**2020 Olympic Games (Tokyo, JPN)****FINAL**

date 06-Aug-21

Omega Timing (2022) - Tokyo 2020 - race analysis - women's 400m final

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Miller-Uibo, Shaunae (BAH)</b>	time	6.67	12.11	17.65	23.40	29.28	35.36	41.63	48.37	48.36	7 / 1							
	reaction time 0.162		5.44	5.54	5.75	5.88	6.08	6.27	6.74	<b>AR</b>	# of strides	12.11	11.29	11.96	13.01	23.40	24.97	1.57
	velocity	7.50	9.19	9.03	8.70	8.50	8.22	7.97	7.42	8.27		175.5	8.26	8.86	8.36	7.69	8.55	8.01
<b>Paulino, Marileidy (DOM) (19)</b>	time	6.76	12.24	17.83	23.64	29.67	35.92	42.33	49.21	49.20	5 / 2							
	reaction time 0.176		5.48	5.59	5.81	6.03	6.25	6.41	6.88	<b>NR PB</b>	# of strides	12.24	11.40	12.28	13.29	23.64	25.57	1.93
	velocity	7.40	9.12	8.94	8.61	8.29	8.00	7.80	7.27	8.13		174.0	8.17	8.77	8.14	7.52	8.46	7.82
<b>Felix, Allyson (USA) (1985)</b>	time	6.52	11.85	17.52	23.40	29.44	35.68	42.29	49.47	49.46	9 / 3							
	reaction time 0.158		5.33	5.67	5.88	6.04	6.24	6.61	7.18		# of strides	11.85	11.55	12.28	13.79	23.40	26.07	2.67
	velocity	7.67	9.38	8.82	8.50	8.28	8.01	7.56	6.96	8.09		183.2	8.44	8.66	8.14	7.25	8.55	7.67
<b>McPherson, Stephenie (JAM)</b>	time	6.61	11.98	17.49	23.30	29.49	35.90	42.44	49.62	49.61	6 / 4							
	reaction time 0.131		5.37	5.51	5.81	6.19	6.41	6.54	7.18		# of strides	11.98	11.32	12.60	13.72	23.30	26.32	3.02
	velocity	7.56	9.31	9.07	8.61	8.08	7.80	7.65	6.96	8.06		185.5	8.35	8.83	7.94	7.29	8.58	7.60
<b>McLeod, Candice (JAM) (19)</b>	time	6.69	12.22	17.86	23.78	29.96	36.39	42.92	49.88	49.87	4 / 5							
	reaction time 0.152		5.53	5.64	5.92	6.18	6.43	6.53	6.96		# of strides	12.22	11.56	12.61	13.49	23.78	26.10	2.32
	velocity	7.47	9.04	8.87	8.45	8.09	7.78	7.66	7.18	8.02		198.0	8.18	8.65	7.93	7.41	8.41	7.66
<b>Williams, Jodie (GBR) (1993)</b>	time	6.53	11.91	17.46	23.29	29.33	35.73	42.49	49.98	49.97	8 / 6							
	reaction time 0.127		5.38	5.55	5.83	6.04	6.40	6.76	7.49	<b>=PB</b>	# of strides	11.91	11.38	12.44	14.25	23.29	26.69	3.40
	velocity	7.66	9.29	9.01	8.58	8.28	7.81	7.40	6.68	8.00		185.7	8.40	8.79	8.04	7.02	8.59	7.49
<b>Hayes, Quanera (USA) (1992)</b>	time	6.71	12.54	18.57	24.87	31.09	37.47	43.98	50.89	50.88	2 / 7							
	reaction time 0.176		5.83	6.03	6.30	6.22	6.38	6.51	6.91		# of strides	12.54	12.33	12.60	13.42	24.87	26.02	1.15
	velocity	7.45	8.58	8.29	7.94	8.04	7.84	7.68	7.24	7.86		7.97	8.11	7.94	7.45	8.04	7.69	
<b>Gómez, Roxana (CUB) (1999)</b>	0.191	no information available								dnf	3 / --							# of strides

**2021 Japanese High School National Championships (Fukui, JPN)****FINAL**

date 28-Jul-21

Shibayama (2021) - national high school and U20 national championships

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Taneru, Asuruhan Marino (J)</b>	time	7.05	13.23	19.60	26.12	32.95	39.90	46.90	54.42	54.42	3 / 1							
	reaction time 0.194		6.18	6.37	6.52	6.83	6.95	7.00	7.52	<b>PB</b>	# of strides	13.23	12.89	13.78	14.52	26.12	28.30	2.18
	velocity	7.09	8.09	7.85	7.67	7.32	7.19	7.14	6.65	7.35		7.56	7.76	7.26	6.89	7.66	7.07	
<b>Kawachi, Sena (JPN) (2003)</b>	time	7.04	13.26	19.70	26.36	33.21	40.08	47.05	54.53	54.53	5 / 2							
	reaction time 0.152		6.22	6.44	6.66	6.85	6.87	6.97	7.48	<b>PB</b>	# of strides	13.26	13.10	13.72	14.45	26.36	28.17	1.81
	velocity	7.10	8.04	7.76	7.51	7.30	7.28	7.17	6.68	7.34		7.54	7.63	7.29	6.92	7.59	7.10	
<b>Mori, Kanon (JPN) (2003)</b>	time	7.13	13.40	19.99	26.74	33.84	41.00	48.20	55.54	55.54	6 / 3							
	reaction time 0.184		6.27	6.59	6.75	7.10	7.16	7.20	7.34		# of strides	13.40	13.34	14.26	14.54	26.74	28.80	2.06
	velocity	7.01	7.97	7.59	7.41	7.04	6.98	6.94	6.81	7.20		7.46	7.50	7.01	6.88	7.48	6.94	
<b>Kobachi, Hinata (JPN) (2003)</b>	time	7.04	13.26	19.72	26.40	33.27	40.38	47.68	55.57	55.57	4 / 4							
	reaction time 0.173		6.22	6.46	6.68	6.87	7.11	7.30	7.89		# of strides	13.26	13.14	13.98	15.19	26.40	29.17	2.77
	velocity	7.10	8.04	7.74	7.49	7.28	7.03	6.85	6.34	7.20		7.54	7.61	7.15	6.58	7.58	6.86	
<b>Taniguchi, Rina (JPN) (2004)</b>	time	7.16	13.48	20.09	26.83	33.87	40.96	48.19	55.90	55.90	7 / 5							
	reaction time 0.184		6.32	6.61	6.74	7.04	7.09	7.23	7.71		# of strides	13.48	13.35	14.13	14.94	26.83	29.07	2.24
	velocity	6.98	7.91	7.56	7.42	7.10	7.05	6.92	6.49	7.16		7.42	7.49	7.08	6.69	7.45	6.88	
<b>Huroresu, Arie (JPN) (2004)</b>	time	7.36	13.84	20.52	27.36	34.41	41.52	48.70	56.20	56.20	2 / 6							
	reaction time 0.164		6.48	6.68	6.84	7.05	7.11	7.18	7.50		# of strides	13.84	13.52	14.16	14.68	27.36	28.84	1.48
	velocity	6.79	7.72	7.49	7.31	7.09	7.03	6.96	6.67	7.12		7.23	7.40	7.06	6.81	7.31	6.93	
<b>Shinden, Nozomi (JPN) (200)</b>	time	7.45	13.90	20.44	27.04	33.96	41.08	48.42	56.35	56.35	8 / 7							
	reaction time 0.236		6.45	6.54	6.60	6.92	7.12	7.34	7.93		# of strides	13.90	13.14	14.04	15.27	27.04	29.31	2.27
	velocity	6.71	7.75	7.65	7.58	7.23	7.02	6.81	6.31	7.10		7.19	7.61	7.12	6.55	7.40	6.82	

<b>Masano, Siho (JPN) (2004)</b>	time	7.43	13.90	20.64	27.55	34.69	41.86	49.09	56.69	56.69	1 / 8							
	reaction time	0.206	6.47	6.74	6.91	7.14	7.17	7.23	7.60		# of strides	13.90	13.65	14.31	14.83	27.55	29.14	1.59
	velocity	6.73	7.73	7.42	7.24	7.00	6.97	6.92	6.58	7.06		7.19	7.33	6.99	6.74	7.26	6.86	

## 2021 Müller British Grand Prix (Gateshead, GBR)

## FINAL

date 13-Jun-21

Omega Timing (2021) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>McPherson, Stephanie (JAM)</b>	time	6.8	12.2	17.9	23.7	29.8	36.4	43.1	50.44	50.44	4 / 1							
	reaction time	0.136	5.40	5.70	5.80	6.10	6.60	6.70	7.34		# of strides	12.20	11.50	12.70	14.04	23.70	26.74	3.04
	interval		6.47	6.74	6.91	7.14	7.17	7.23	7.60			8.20	8.70	7.87	7.12	8.44	7.48	
	velocity	7.35	9.26	8.77	8.62	8.20	7.58	7.46	6.81	7.93	188.0	8.20	8.70	7.87	7.12	8.44	7.48	
<b>Williams, Jodie (GBR) (1993)</b>	time	6.8	12.4	18.4	24.5	30.7	37.3	44.0	50.94	50.94	7 / 2							
	reaction time	0.136	5.60	6.00	6.10	6.20	6.60	6.70	6.94	PB	# of strides	12.40	12.10	12.80	13.64	24.50	26.44	1.94
	interval		6.47	6.74	6.91	7.14	7.17	7.23	7.60			8.06	8.26	7.81	7.33	8.16	7.56	
	velocity	7.35	8.93	8.33	8.20	8.06	7.58	7.46	7.20	7.85	186.7	8.06	8.26	7.81	7.33	8.16	7.56	
<b>Klaver, Lieke (NED) (1998)</b>	time	6.7	12.2	18.0	24.1	30.3	37.0	44.1	51.54	51.54	5 / 3							
	reaction time	0.173	5.50	5.80	6.10	6.20	6.70	7.10	7.44		# of strides	12.20	11.90	12.90	14.54	24.10	27.44	3.34
	interval		6.47	6.74	6.91	7.14	7.17	7.23	7.60			8.20	8.40	7.75	6.88	8.30	7.29	
	velocity	7.46	9.09	8.62	8.20	8.06	7.46	7.04	6.72	7.76	192.0	8.20	8.40	7.75	6.88	8.30	7.29	
<b>Kaczmarek, Natalia (POL) (1981)</b>	time	7.0	12.7	18.6	24.8	31.3	37.9	44.6	51.71	51.71	6 / 4							
	reaction time	0.151	5.70	5.90	6.20	6.50	6.60	6.70	7.11		# of strides	12.70	12.10	13.10	13.81	24.80	26.91	2.11
	interval		6.47	6.74	6.91	7.14	7.17	7.23	7.60			7.87	8.26	7.63	7.24	8.06	7.43	
	velocity	7.14	8.77	8.47	8.06	7.69	7.58	7.46	7.03	7.74		7.87	8.26	7.63	7.24	8.06	7.43	
<b>Yeargin, Nicole (GBR) (1997)</b>	time	6.9	12.5	18.3	24.4	30.7	37.4	44.3	51.77	51.77	3 / 5							
	reaction time	0.162	5.60	5.80	6.10	6.30	6.70	6.90	7.47		# of strides	12.50	11.90	13.00	14.37	24.40	27.37	2.97
	interval		6.47	6.74	6.91	7.14	7.17	7.23	7.60			8.00	8.40	7.69	6.96	8.20	7.31	
	velocity	7.25	8.93	8.62	8.20	7.94	7.46	7.25	6.69	7.73	198.5	8.00	8.40	7.69	6.96	8.20	7.31	
<b>Williams, Sada (BAR) (1997)</b>	time	6.8	12.5	18.4	24.5	30.8	37.4	44.6	52.34	52.34	2 / 6							
	reaction time	0.160	5.70	5.90	6.10	6.30	6.60	7.20	7.74		# of strides	12.50	12.00	12.90	14.94	24.50	27.84	3.34
	interval		6.47	6.74	6.91	7.14	7.17	7.23	7.60			8.00	8.33	7.75	6.69	8.16	7.18	
	velocity	7.35	8.77	8.47	8.20	7.94	7.58	6.94	6.46	7.64	197.2	8.00	8.33	7.75	6.69	8.16	7.18	
<b>Pipi, Ama (GBR) (1995)</b>	time	7.0	12.8	18.8	25.0	31.5	38.1	45.0	52.50	52.50	8 / 7							
	reaction time	0.134	5.80	6.00	6.20	6.50	6.60	6.90	7.50		# of strides	12.80	12.20	13.10	14.40	25.00	27.50	2.50
	interval		6.47	6.74	6.91	7.14	7.17	7.23	7.60			7.81	8.20	7.63	6.94	8.00	7.27	
	velocity	7.14	8.62	8.33	8.06	7.69	7.58	7.25	6.67	7.62		7.81	8.20	7.63	6.94	8.00	7.27	
<b>de Witte, Lisanne (NED) (1981)</b>	time	7.0	12.9	18.9	25.1	31.5	38.2	45.2	52.67	52.67	1 / 8							
	reaction time	0.155	5.90	6.00	6.20	6.40	6.70	7.00	7.47		# of strides	12.90	12.20	13.10	14.47	25.10	27.57	2.47
	interval		6.47	6.74	6.91	7.14	7.17	7.23	7.60			7.75	8.20	7.63	6.91	7.97	7.25	
	velocity	7.14	8.47	8.33	8.06	7.81	7.46	7.14	6.69	7.59		7.75	8.20	7.63	6.91	7.97	7.25	

## B Race

date 13-Jun-21

Omega Timing (2021) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Diamond, Emily (GBR) (1991)</b>	time	7.1	12.9	18.9	25.1	31.4	37.9	44.7	51.89	51.89	5 / 1							
	reaction time	0.164	5.80	6.00	6.20	6.30	6.50	6.80	7.19		# of strides	12.90	12.20	12.80	13.99	25.10	26.79	1.69
	interval		6.47	6.74	6.91	7.14	7.17	7.23	7.60			7.75	8.20	7.81	7.15	7.97	7.47	
	velocity	7.04	8.62	8.33	8.06	7.94	7.69	7.35	6.95	7.71		7.75	8.20	7.81	7.15	7.97	7.47	
<b>Clark, Zoey (GBR) (1994)</b>	time	6.8	12.5	18.5	24.8	31.4	38.2	45.0	52.13	52.13	3 / 2							
	reaction time	0.145	5.70	6.00	6.30	6.60	6.80	6.80	7.13		# of strides	12.50	12.30	13.40	13.93	24.80	27.33	2.53
	interval		6.47	6.74	6.91	7.14	7.17	7.23	7.60			8.00	8.13	7.46	7.18	8.06	7.32	
	velocity	7.35	8.77	8.33	7.94	7.58	7.35	7.35	7.01	7.67		8.00	8.13	7.46	7.18	8.06	7.32	
<b>Williams, Hannah (GBR) (1991)</b>	time	6.9	12.7	18.8	25.3	31.8	38.5	45.5	52.98	52.98	4 / 3							
	reaction time	0.171	5.80	6.10	6.50	6.50	6.70	7.00	7.48		# of strides	12.70	12.60	13.20	14.48	25.30	27.68	2.38
	interval		6.47	6.74	6.91	7.14	7.17	7.23	7.60			7.87	7.94	7.58	6.91	7.91	7.23	
	velocity	7.25	8.62	8.20	7.69	7.69	7.46	7.14	6.68	7.55		7.87	7.94	7.58	6.91	7.91	7.23	
<b>Hillyard, Amy (GBR) (1995)</b>	time	7.0	12.7	18.7	25.0	31.6	38.7	46.1	53.84	53.84	2 / 6							
	reaction time	0.149	5.70	6.00	6.30	6.60	7.10	7.40	7.74		# of strides	12.70	12.30	13.70	15.14	25.00	28.84	3.84
	interval		6.47	6.74	6.91	7.14	7.17	7.23	7.60			7.87	8.13	7.30	6.61	8.00	6.93	
	velocity	7.14	8.77	8.33	7.94	7.58	7.04	6.76	6.46	7.43		7.87	8.13	7.30	6.61	8.00	6.93	

## 2021 Irena Szewinska Memorial (Bydgoszcz, POL)

## FINAL

date 30-Jun-21

Vazel (2021) - <https://twitter.com/pjvazel/status/1410310278391140362?s=21>

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Mboma, Christine (NAM) (2017)</b>	time		11.9		23.0		35.2		48.54	48.54	4 / 1							
	reaction time		0.342		11.10		12.20		13.34	WJR	# of strides	11.90	11.10	12.20	13.34	23.00	25.54	2.54
	interval											8.40	9.01	8.20	7.50	8.70	7.83	
	velocity		8.40		9.01		8.20		7.50	8.24	191.0	8.40	9.01	8.20	7.50	8.70	7.83	

## 2021 Japanese National Championships (Osaka, JPN)

## Final

date 25-Jun-21

Yamanaka (2021) - race analysis of men's and women's 400m and 300m races in 2021 competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Kobayashi, Mayu (JPN) (1991)</b>	time	7.17	13.04	19.02	25.21	31.65	38.37	45.43	52.86	52.86	9 / 1							
	reaction time	0.201	5.87	5.98	6.19	6.44	6.72	7.06	7.43	PB	# of strides	13.04	12.17	13.16	14.49	25.21	27.65	2.44
	interval		6.47	6.74	6.91	7.14	7.17	7.23	7.60			7.67	8.22	7.60	6.90	7.93	7.23	
	velocity	6.97	8.52	8.36	8.08	7.76	7.44	7.08	6.73	7.57	198.0	7.67	8.22	7.60	6.90	7.93	7.23	
<b>Matsumoto, Nanako (JPN) (1991)</b>	time	6.90	12.60	18.54	24.81	31.40	38.30	45.57	53.35	53.35	6 / 2				</			



## 2021 Japanese U20 National Championships (Osaka, JPN)

## Final

date 25-Jun-21

Yamanaka (2021) - race analysis of men's and women's 400m and 300m races in 2021 competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Sudo, Mio (JPN) (2002)	time	7.18	13.40	19.69	26.31	33.13	40.10	47.30	54.92	54.92	5 / 1							
	reaction time 0.182	interval	6.22	6.29	6.62	6.82	6.97	7.20	7.62		# of strides	13.40	12.91	13.79	14.82	26.31	28.61	2.30
	velocity	6.96	8.04	7.95	7.55	7.33	7.17	6.94	6.56	7.28	203.5	7.46	7.75	7.25	6.75	7.60	6.99	
Taneru, Asuruhan Marino (JPN)	time	7.19	13.50	19.90	26.60	33.45	40.38	47.50	55.08	55.08	6 / 2							
	reaction time 0.281	interval	6.31	6.40	6.70	6.85	6.93	7.12	7.58		# of strides	13.50	13.10	13.78	14.70	26.60	28.48	1.88
	velocity	6.95	7.92	7.81	7.46	7.30	7.22	7.02	6.60	7.26	204.5	7.41	7.63	7.26	6.80	7.52	7.02	
Kawachi, Sena (JPN) (2003)	time	7.06	13.22	19.50	26.17	33.01	40.02	47.33	55.13	55.13	7 / 3							
	reaction time 0.175	interval	6.16	6.28	6.67	6.84	7.01	7.31	7.80		# of strides	13.22	12.95	13.85	15.11	26.17	28.96	2.79
	velocity	7.08	8.12	7.96	7.50	7.31	7.13	6.84	6.41	7.26	211.2	7.56	7.72	7.22	6.62	7.64	6.91	
Iida, Keiko (JPN) (2002)	time	7.44	13.77	20.17	26.82	33.53	40.36	47.48	55.14	55.14	4 / 4							
	reaction time 0.217	interval	6.33	6.40	6.65	6.71	6.83	7.12	7.66	PB	# of strides	13.77	13.05	13.54	14.78	26.82	28.32	1.50
	velocity	6.72	7.90	7.81	7.52	7.45	7.32	7.02	6.53	7.25	208.0	7.26	7.66	7.39	6.77	7.46	7.06	
Kudo, Mei (JPN) (2002)	time	7.19	13.35	19.64	26.24	33.15	40.34	47.75	55.25	55.25	2 / 5							
	reaction time 0.214	interval	6.16	6.29	6.60	6.91	7.19	7.41	7.50	PB	# of strides	13.35	12.89	14.10	14.91	26.24	29.01	2.77
	velocity	6.95	8.12	7.95	7.58	7.24	6.95	6.75	6.67	7.24	204.0	7.49	7.76	7.09	6.71	7.62	6.89	

## 2021 NCAA Championships (Eugene, OR)

## Final

date 06-Jun-21

Vazel (2021) - <https://twitter.com/pjvazel/status/1403991035081023493?s=21>

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Mu, Athing (USA) (2002)	time		12.1		23.7		36.1		49.57	49.57	7 / 1							
	reaction time 0.172	interval			11.60		12.40		13.47	NJR PB	# of strides	12.10	11.60	12.40	13.47	23.70	25.87	2.17
	velocity		8.26		8.62		8.06		7.42	8.07	180.5	8.26	8.62	8.06	7.42	8.44	7.73	

## 2021 Denka Athletics Challenge Cup (Niigata, JPN)

## Final

date 06-Jun-21

Yamanaka (2021) - race analysis of men's and women's 400m and 300m races in 2021 competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Aoyama, Seika (JPN) (1996)	time	7.01	12.87	18.94	25.24	31.83	38.73	45.91	53.57	53.57	1 / 1							
	reaction time	interval	5.86	6.07	6.30	6.59	6.90	7.18	7.66		# of strides	12.87	12.37	13.49	14.84	25.24	28.33	3.09
	velocity	7.13	8.53	8.24	7.94	7.59	7.25	6.96	6.53	7.47		7.77	8.08	7.41	6.74	7.92	7.06	
Kobayashi, Mayu (JPN) (1991)	time	7.14	13.23	19.44	25.87	32.58	39.48	46.49	53.81	53.81	1 / 2							
	reaction time	interval	6.09	6.21	6.43	6.71	6.90	7.01	7.32		# of strides	13.23	12.64	13.61	14.33	25.87	27.94	2.07
	velocity	7.00	8.21	8.05	7.78	7.45	7.25	7.13	6.83	7.43		7.56	7.91	7.35	6.98	7.73	7.16	
Kuboyama, Haruna (JPN) (1991)	time	6.82	12.64	18.77	25.18	31.86	38.85	46.19	53.94	53.94	1 / 3							
	reaction time	interval	5.82	6.13	6.41	6.68	6.99	7.34	7.75	PB	# of strides	12.64	12.54	13.67	15.09	25.18	28.76	3.58
	velocity	7.33	8.59	8.16	7.80	7.49	7.15	6.81	6.45	7.42		7.91	7.97	7.32	6.63	7.94	6.95	
Matsumoto, Nanako (JPN) (1991)	time	7.10	13.13	19.34	25.91	32.69	39.65	46.80	54.40	54.40	1 / 4							
	reaction time	interval	6.03	6.21	6.57	6.78	6.96	7.15	7.60		# of strides	13.13	12.78	13.74	14.75	25.91	28.49	2.58
	velocity	7.04	8.29	8.05	7.61	7.37	7.18	6.99	6.58	7.35		7.62	7.82	7.28	6.78	7.72	7.02	
Iwata, Yuna (JPN) (1997)	time	7.11	13.26	19.55	26.19	32.99	39.91	47.03	54.53	54.43	1 / 5							
	reaction time	interval	6.15	6.29	6.64	6.80	6.92	7.12	7.50		# of strides	13.26	12.93	13.72	14.62	26.19	28.34	2.15
	velocity	7.03	8.13	7.95	7.53	7.35	7.23	7.02	6.67	7.35		7.54	7.73	7.29	6.84	7.64	7.06	
Shintaku, Asami (JPN) (1994)	time	7.15	13.39	19.82	26.56	33.37	40.26	47.27	54.79	54.79	1 / 6							
	reaction time	interval	6.24	6.43	6.74	6.81	6.89	7.01	7.52		# of strides	13.39	13.17	13.70	14.53	26.56	28.23	1.67
	velocity	6.99	8.01	7.78	7.42	7.34	7.26	7.13	6.65	7.30		7.47	7.59	7.30	6.88	7.53	7.08	

## 2021 NCAA Preliminary West Round (College Station, TX)

## Quarter-Final 2

date 29-May-21

Vazel (2021) - <https://twitter.com/pjvazel/status/1403991035081023493?s=21>

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Mu, Athing (USA) (2002)	time		12.1		23.5		35.9		49.68	49.68	6 / 1							
	reaction time 0.172	interval			11.40		12.40		13.78	NJR PB	# of strides	12.10	11.40	12.40	13.78	23.50	26.18	2.68
	velocity		8.26		8.77		8.06		7.26	8.05	181.0	8.26	8.77	8.06	7.26	8.51	7.64	

## 2021 Shimane High School Championships (Izumo, JPN)

## Final

date 28-May-21

Shimizu (2021) - shimane high school championships 2021 - biomechanics data analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Mochida, Kanon (JPN) (2003)	time		14.07		27.60		42.29		58.36	58.36	5 / 1							
	reaction time	interval			13.53		14.69		16.07		# of strides	14.07	13.53	14.69	16.07	27.60	30.76	3.16
	velocity	7.11		7.39		6.81		6.22	6.85			7.11	7.39	6.81	6.22	7.25	6.50	
Miyahara, Hina (JPN)	time		14.53		28.35		43.51		60.59	60.59	3 / 2							
	reaction time	interval			13.82		15.16		17.08		# of strides	14.53	13.82	15.16	17.08	28.35	32.24	3.89
	velocity	6.88		7.24		6.60		5.85	6.60			6.88	7.24	6.60	5.85	7.05	6.20	
Shimura, Minami (JPN)	time		14.93		29.08		44.56		61.21	61.21	8 / 3							
	reaction time	interval			14.15		15.48		16.65		# of strides	14.93	14.15	15.48	16.65	29.08	32.13	3.05
	velocity	6.70		7.07		6.46		6.01	6.53			6.70	7.07	6.46	6.01	6.88	6.22	
Hihara, Honaka (JPN)	time		15.15		29.98		45.82		62.55	62.55	6 / 4							
	reaction time	interval			14.83		15.84		16.73		# of strides	15.15	14.83	15.84	16.73	29.98	32.57	2.59
	velocity	6.60		6.74		6.31		5.98	6.39			6.60	6.74	6.31	5.98	6.67	6.14	
Okada, Eina (JPN)	time		14.22		28.22		44.61		62.90	62.90	4 / 5							
	reaction time	interval			14.00		16.39		18.29		# of strides	14.22	14.00	16.39	18.29	28.22	34.68	6.46
	velocity																	

	velocity	7.03	7.14	6.10	5.47	6.36		7.03	7.14	6.10	5.47	7.09	5.77	
<b>Saito, Yuna (JPN)</b>	time	14.75	29.00	45.18	63.66	63.66	2 / 6							
	reaction time		14.25	16.18	18.48		# of strides	14.75	14.25	16.18	18.48	29.00	34.66	5.66
	velocity	6.78	7.02	6.18	5.41	6.28		6.78	7.02	6.18	5.41	6.90	5.77	
<b>Saito, Yui (JPN)</b>	time	15.27	30.18	46.76	65.50	65.50	1 / 7							
	reaction time		14.91	16.58	18.74		# of strides	15.27	14.91	16.58	18.74	30.18	35.32	5.14
	velocity	6.55	6.71	6.03	5.34	6.11		6.55	6.71	6.03	5.34	6.63	5.66	
<b>Kawakami, Koyuki (JPN)</b>	time	15.20	30.00	47.24	66.29	66.29	7 / 8							
	reaction time		14.80	17.24	19.05		# of strides	15.20	14.80	17.24	19.05	30.00	36.29	6.29
	velocity	6.58	6.76	5.80	5.25	6.03		6.58	6.76	5.80	5.25	6.67	5.51	

**2021 International All Comers Meeting (Lusaka, ZAM)**

FINAL

date 11-Apr-21

Vazel (2021) - <https://twitter.com/pjvazel/status/1382341180789231617?s=21>

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Mboma, Christine (NAM) (2f)</b>	time		13.0		24.3		36.5		49.24	49.24	1 / 1							
	reaction time				11.30		12.20		12.74	<b>WJR</b>	# of strides	13.00	11.30	12.20	12.74	24.30	24.94	0.64
	velocity		7.69		8.85		8.20		7.85	8.12	195.0	7.69	8.85	8.20	7.85	8.23	8.02	
<b>Masingi, Beatrice (NAM) (2f)</b>	time		12.1		23.8		36.5		49.53	49.53	5 / 2							
	reaction time				11.70		12.70		13.03	<b>PB</b>	# of strides	12.10	11.70	12.70	13.03	23.80	25.73	1.93
	velocity		8.26		8.55		7.87		7.67	8.08	182.0	8.26	8.55	7.87	7.67	8.40	7.77	

**2021 Müller Grand Prix (Gateshead, GBR)**

FINAL

date 23-May-21

Omega Timing (2021) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Ellis, Kendall (USA) (1996)</b>	time	7.3	12.9	18.7	24.6	30.7	37.4	44.6	51.86	51.86	5 / 1							
	reaction time	0.179			5.60	5.90	6.10	6.70	7.20	7.26	# of strides	12.90	11.70	12.80	14.46	24.60	27.26	2.66
	velocity	6.85	8.93	8.62	8.47	8.20	7.46	6.94	6.89	7.71	189.5	7.75	8.55	7.81	6.92	8.13	7.34	
<b>McPherson, Stephenie Ann</b>	time	7.4	13.2	19.0	25.0	31.1	37.8	44.9	51.96	51.96	6 / 2							
	reaction time	0.129			5.80	6.00	6.10	6.70	7.10	7.06	# of strides	13.20	11.80	12.80	14.16	25.00	26.96	1.96
	velocity	6.76	8.62	8.62	8.33	8.20	7.46	7.04	7.08	7.70	194.0	7.58	8.47	7.81	7.06	8.00	7.42	
<b>Klaver, Lieke (NED) (1998)</b>	time	7.3	12.9	18.7	24.6	30.8	37.6	44.8	52.03	52.03	2 / 3							
	reaction time	0.167			5.60	5.80	6.20	6.80	7.20	7.23	# of strides	12.90	11.70	13.00	14.43	24.60	27.43	2.83
	velocity	6.85	8.93	8.62	8.47	8.06	7.35	6.94	6.92	7.69	189.5	7.75	8.55	7.69	6.93	8.13	7.29	
<b>Whitney, Kaylin (USA) (1998)</b>	time	7.2	12.9	18.7	24.8	31.1	38.0	45.3	52.84	52.84	7 / 4							
	reaction time	0.162			5.70	5.80	6.10	6.30	6.90	7.30	# of strides	12.90	11.90	13.20	14.84	24.80	28.04	3.24
	velocity	6.94	8.77	8.62	8.20	7.94	7.25	6.85	6.63	7.57	189.5	7.75	8.40	7.58	6.74	8.06	7.13	
<b>Williams, Hannah (GBR) (19f)</b>	time	7.2	12.7	18.5	24.6	31.0	37.9	45.5	53.35	53.35	8 / 5							
	reaction time	0.163			5.50	6.10	6.40	6.90	7.60	7.85	# of strides	12.70	11.90	13.30	15.45	24.60	28.75	4.15
	velocity	6.94	9.09	8.62	8.20	7.81	7.25	6.58	6.37	7.50	189.5	7.87	8.40	7.52	6.47	8.13	6.96	
<b>Jackson, Shericka (JAM) (19f)</b>	time	7.3	12.9	18.7	24.7	31.2	38.2	45.6	53.40	53.40	4 / 6							
	reaction time	0.177			5.60	6.00	6.50	7.00	7.40	7.80	# of strides	12.90	11.80	13.50	15.20	24.70	28.70	4.00
	velocity	6.85	8.93	8.62	8.33	7.69	7.14	6.76	6.41	7.49	189.5	7.75	8.47	7.41	6.58	8.10	6.97	
<b>de Witte, Lisanne (NED) (19f)</b>	time	7.6	13.5	19.5	25.6	31.9	38.8	46.0	53.42	53.42	1 / 7							
	reaction time	0.155			5.90	6.00	6.10	6.30	6.90	7.20	# of strides	13.50	12.10	13.20	14.62	25.60	27.82	2.22
	velocity	6.58	8.47	8.33	8.20	7.94	7.25	6.94	6.74	7.49	189.5	7.41	8.26	7.58	6.84	7.81	7.19	
<b>Nielsen, Laviai (GBR) (1996)</b>	time	7.2	12.8	18.6	24.6	31.0	37.9	45.7	53.96	53.96	3 / 8							
	reaction time	0.140			5.60	5.80	6.00	6.40	6.90	7.80	# of strides	12.80	11.80	13.30	16.06	24.60	29.36	4.76
	velocity	6.94	8.93	8.62	8.33	7.81	7.25	6.41	6.05	7.41	189.5	7.81	8.47	7.52	6.23	8.13	6.81	

**2021 Ready Steady Tokyo (Tokyo, JPN)**

FINAL

date 09-May-21

Yamanaka (2021) - race analysis of men's and women's 400m and 300m races in 2021 competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Kobayashi, Mayu (JPN) (199f)</b>	time	7.14	13.25	19.45	25.86	32.42	39.17	46.15	53.55	53.55	9 / 1							
	reaction time	0.164			6.11	6.20	6.41	6.56	6.75	6.98	# of strides	13.25	12.61	13.31	14.38	25.86	27.69	1.83
	velocity	7.00	8.18	8.06	7.80	7.62	7.41	7.16	6.76	7.47	189.5	7.55	7.93	7.51	6.95	7.73	7.22	
<b>Matsumoto, Nanako (JPN) (f)</b>	time	6.96	12.88	19.05	25.46	32.17	39.14	46.27	53.74	53.74	4 / 2							
	reaction time	0.157			5.92	6.17	6.41	6.71	6.97	7.13	# of strides	12.88	12.58	13.68	14.60	25.46	28.28	2.82
	velocity	7.18	8.45	8.10	7.80	7.45	7.17	7.01	6.69	7.44	189.5	7.76	7.95	7.31	6.85	7.86	7.07	
<b>Oshima, Airi (JPN) (2000)</b>	time	7.20	13.43	19.87	26.60	33.42	40.28	47.19	54.25	54.25	7 / 3							
	reaction time	0.146			6.23	6.44	6.73	6.82	6.86	6.91	# of strides	13.43	13.17	13.68	13.97	26.60	27.65	1.05
	velocity	6.94	8.03	7.76	7.43	7.33	7.29	7.24	7.08	7.37	189.5	7.45	7.59	7.31	7.16	7.52	7.23	
<b>Kawada, Ayaka (JPN) (1999)</b>	time	7.05	13.18	19.49	26.05	32.80	39.74	46.92	54.46	54.46	8 / 4							
	reaction time	0.170			6.13	6.31	6.56	6.75	6.94	7.18	# of strides	13.18	12.87	13.69	14.72	26.05	28.41	2.36
	velocity	7.09	8.16	7.92	7.62	7.41	7.20	6.96	6.63	7.34	189.5	7.59	7.77	7.30	6.79	7.68	7.04	
<b>Shintaku, Asami (JPN) (1994)</b>	time	7.15	13.49	20.00	26.63	33.37	40.18	47.21	54.89	54.89	3 / 5							
	reaction time	0.143			6.34	6.51	6.63	6.74	6.81	7.03	# of strides	13.49	13.14	13.55	14.71	26.63	28.26	1.63
	velocity	6.99	7.89	7.68	7.54	7.42	7.34	7.11	6.51	7.29	189.5	7.41	7.61	7.38	6.80	7.51	7.08	
<b>Takeishi, Konomi (JPN) (199f)</b>	time	7.01	13.12	19.47	26.07	32.97	40.15	47.58	55.36	55.36	5 / 6							
	reaction time	0.139			6.11	6.35	6.60	6.90	7.18	7.43	# of strides	13.12	12.95	14.08	15.21	26.07	29.29	3.22
	velocity	7.13	8.18	7.87	7.58	7.25	6.96	6.73	6.43	7.23	189.5	7.62	7.72	7.10	6.57	7.67	6.83	

## 2021 Shizuoka International Athletics Meeting (Fukuroi, JPN)

## FINAL

date 03-May-21

Yamanaka (2021) - race analysis of men's and women's 400m and 300m races in 2021 competition

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Kuboyama, Haruna (JPN) (11)</b> time	6.87	12.73	18.99	25.69	32.58	39.67	47.02	54.90	54.90	4 / 1							
reaction time 0.224 interval		5.86	6.26	6.70	6.89	7.09	7.35	7.88	PB	# of strides	12.73	12.96	13.98	15.23	25.69	29.21	3.52
velocity	7.28	8.53	7.99	7.46	7.26	7.05	6.80	6.35	7.29	213.0	7.86	7.72	7.15	6.57	7.79	6.85	
<b>Oshima, Airi (JPN) (2000)</b> time	7.27	13.33	19.75	26.49	33.36	40.39	47.80	56.10	56.10	5 / 3							
reaction time 0.185 interval		6.06	6.42	6.74	6.87	7.03	7.41	8.30		# of strides	13.33	13.16	13.90	15.71	26.49	29.61	3.12
velocity	6.88	8.25	7.79	7.42	7.28	7.11	6.75	6.02	7.13	7.50	7.60	7.19	6.37	7.55	6.75		
<b>Takeishi, Konomi (JPN) (199)</b> time	7.12	13.35	20.00	27.00	34.18	41.58	49.16	57.13	57.13	6 / 6							
reaction time 0.171 interval		6.23	6.65	7.00	7.18	7.40	7.58	7.97		# of strides	13.35	13.65	14.58	15.55	27.00	30.13	3.13
velocity	7.02	8.03	7.52	7.14	6.96	6.76	6.60	6.27	7.00	7.49	7.33	6.86	6.43	7.41	6.64		

## B FINAL

date 03-May-21

Yamanaka (2021) - race analysis of men's and women's 400m and 300m races in 2021 competition

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Iwata, Yuna (JPN) (1997)</b> time	7.04	13.26	19.69	26.30	33.03	39.94	47.08	54.51	54.51	6 / 1							
reaction time 0.164 interval		6.22	6.43	6.61	6.73	6.91	7.14	7.43		# of strides	13.26	13.04	13.64	14.57	26.30	28.21	1.91
velocity	7.10	8.04	7.78	7.56	7.43	7.24	7.00	6.73	7.34	209.0	7.54	7.67	7.33	6.86	7.60	7.09	

## 2020 Japanese U20 National Championships (Hiroshima, JPN)

## FINAL

date 23-Oct-20

Kobayashi (2020) - national high school and U20 national championships

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Nakano, Nano (JPN) (2001)</b> time	7.34	13.66	20.14	26.81	33.72	40.90	48.21	55.83	55.83	6 / 1							
reaction time 0.197 interval		6.32	6.48	6.67	6.91	7.18	7.31	7.62		# of strides	13.66	13.15	14.09	14.93	26.81	29.02	2.21
velocity	6.81	7.91	7.72	7.50	7.24	6.96	6.84	6.56	7.16	213.3	7.32	7.60	7.10	6.70	7.46	6.89	
<b>Yoshinaka, Hinako (JPN) (20)</b> time	7.27	13.44	19.79	26.45	33.31	40.36	47.81	56.08	56.08	3 / 2							
reaction time 0.182 interval		6.17	6.35	6.66	6.86	7.05	7.45	8.27		# of strides	13.44	13.01	13.91	15.72	26.45	29.63	3.18
velocity	6.88	8.10	7.87	7.51	7.29	7.09	6.71	6.05	7.13	226.6	7.44	7.69	7.19	6.36	7.56	6.75	
<b>Kaneko, Hitomi (JPN) (2002)</b> time	7.48	13.94	20.54	27.29	34.13	41.11	48.36	56.20	56.20	4 / 3							
reaction time 0.198 interval		6.46	6.60	6.75	6.84	6.98	7.25	7.84		# of strides	13.94	13.35	13.82	15.09	27.29	28.91	1.62
velocity	6.68	7.74	7.58	7.41	7.31	7.16	6.90	6.38	7.12	211.9	7.17	7.49	7.24	6.63	7.33	6.92	

## 2020 Japanese High School National Championships (Hiroshima, JPN)

## A FINAL

date 23-Oct-20

Kobayashi (2020) - national high school and U20 national championships

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Ono, Mizuna (JPN) (2002)</b> time	6.92	13.04	19.40	25.96	32.75	39.73	46.89	54.48	54.48	5 / 1							
reaction time 0.166 interval		6.12	6.36	6.56	6.79	6.98	7.16	7.59		# of strides	13.04	12.92	13.77	14.75	25.96	28.52	2.56
velocity	7.23	8.17	7.86	7.62	7.36	7.16	6.98	6.59	7.34	196.7	7.67	7.74	7.26	6.78	7.70	7.01	
<b>Adachi, Marin (JPN) (2003)</b> time	6.94	13.05	19.44	26.04	32.71	39.62	46.84	54.57	54.57	6 / 2							
reaction time 0.165 interval		6.11	6.39	6.60	6.67	6.91	7.22	7.73		# of strides	13.05	12.99	13.58	14.95	26.04	28.53	2.49
velocity	7.20	8.18	7.82	7.58	7.50	7.24	6.93	6.47	7.33	210.1	7.66	7.70	7.36	6.69	7.68	7.01	
<b>Mutsuki, Ririka (JPN)</b> time	7.04	13.20	19.69	26.46	33.43	40.62	47.99	55.44	55.44	4 / 3							
reaction time 0.171 interval		6.16	6.49	6.77	6.97	7.19	7.37	7.45		# of strides	13.20	13.26	14.16	14.82	26.46	28.98	2.52
velocity	7.10	8.12	7.70	7.39	7.17	6.95	6.78	6.71	7.22	210.1	7.58	7.54	7.06	6.75	7.56	6.90	
<b>Matsuoka, Moe (JPN) (2003)</b> time	7.30	13.66	20.12	26.72	33.53	40.58	47.95	55.68	55.68	3 / 4							
reaction time 0.205 interval		6.36	6.46	6.60	6.81	7.05	7.37	7.73		# of strides	13.66	13.06	13.86	15.10	26.72	28.96	2.24
velocity	6.85	7.86	7.74	7.58	7.34	7.09	6.78	6.47	7.18	211.6	7.32	7.66	7.22	6.62	7.49	6.91	
<b>Iida, Keiko (JPN) (2002)</b> time	7.46	13.90	20.45	27.15	34.00	41.05	48.30	55.75	55.75	8 / 5							
reaction time 0.196 interval		6.44	6.55	6.70	6.85	7.05	7.25	7.45		# of strides	13.90	13.25	13.90	14.70	27.15	28.60	1.45
velocity	6.70	7.76	7.63	7.46	7.30	7.09	6.90	6.71	7.17	210.7	7.19	7.55	7.19	6.80	7.37	6.99	
<b>Nitta, Nozomi (JPN)</b> time	7.32	13.64	20.09	26.65	33.43	40.55	47.98	55.82	55.82	7 / 6							
reaction time 0.190 interval		6.32	6.45	6.56	6.78	7.12	7.43	7.84		# of strides	13.64	13.01	13.90	15.27	26.65	29.17	2.52
velocity	6.83	7.91	7.75	7.62	7.37	7.02	6.73	6.38	7.17	204.3	7.33	7.69	7.19	6.55	7.50	6.86	

## 2020 Japanese National Championships (Niigata, JPN)

## FINAL

date 02-Oct-20

Yamanaka (2020) - 400m race analysis of men and women during 2020 season

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Aoyama, Seika (JPN) (1996)</b> time	6.97	12.80	18.82	25.06	31.62	38.50	45.72	53.55	53.55	4 / 1							
reaction time 0.193 interval		5.83	6.02	6.24	6.56	6.88	7.22	7.83		# of strides	12.80	12.26	13.44	15.05	25.06	28.49	3.43
velocity	7.17	8.58	8.31	8.01	7.62	7.27	6.93	6.39	7.47	210.0	7.81	8.16	7.44	6.64	7.98	7.02	
<b>Matsumoto, Nanako (JPN) (*)</b> time	6.89	12.81	18.89	25.21	31.82	38.76	46.00	53.77	53.77	7 / 2							
reaction time 0.176 interval		5.92	6.08	6.32	6.61	6.94	7.24	7.77		# of strides	12.81	12.40	13.55	15.01	25.21	28.56	3.35
velocity	7.26	8.45	8.22	7.91	7.56	7.20	6.91	6.44	7.44	204.7	7.81	8.06	7.38	6.66	7.93	7.00	
<b>Takashima, Saki (JPN) (2002)</b> time	7.21	13.37	19.64	26.04	32.62	39.39	46.36	53.81	53.81	8 / 3							
reaction time 0.191 interval		6.16	6.27	6.40	6.58	6.77	6.97	7.45		# of strides	13.37	12.67	13.35	14.42	26.04	27.77	1.73
velocity	6.93	8.12	7.97	7.81	7.60	7.39	7.17	6.71	7.43	204.0	7.48	7.89	7.49	6.93	7.68	7.20	
<b>Oshima, Airi (JPN) (2000)</b> time	7.07	13.13	19.52	26.15	32.89	39.77	46.77	54.16	54.16	6 / 4							
reaction time 0.174 interval		6.06	6.39	6.63	6.74	6.88	7.00	7.39		# of strides	13.13	13.02	13.62	14.39	26.15	28.01	1.86
velocity	7.07	8.25	7.82	7.54	7.42	7.27	7.14	6.77	7.39	225.7	7.62	7.68	7.34	6.95	7.65	7.14	
<b>Takeishi, Konomi (JPN) (199)</b> time	7.01	12.98	19.29	25.98	32.99	40.17	47.44	55.14	55.14	2 / 7							
reaction time 0.162 interval		5.97	6.31	6.69	7.01	7.18	7.27	7.70		# of strides	12.98	13.00	14.19	14.97	25.98	29.16	3.18
velocity	7.13	8.38	7.92	7.47	7.13	6.96	6.88	6.49	7.25	7.70	7.69	7.05	6.68	7.70	6.86		



**Heat 3**

date 01-Oct-20

Yamanaka (2020) - 400m race analysis of men and women during 2020 season

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Matsumoto, Nanako (JPN)</b> (time)	6.91	12.78	18.89	25.38	32.15	39.20	46.49	54.24	54.24	4 / 1							
reaction time 0.180 interval		5.87	6.11	6.49	6.77	7.05	7.29	7.75		# of strides	12.78	12.60	13.82	15.04	25.38	28.86	3.48
velocity	7.24	8.52	8.18	7.70	7.39	7.09	6.86	6.45	7.37	204.7	7.82	7.94	7.24	6.65	7.88	6.93	
<b>Hirosawa, Mae (JPN)</b> (1997) time	6.82	12.74	19.05	25.74	32.71	39.92	47.38	55.40	55.40	6 / 3							
reaction time 0.156 interval		5.92	6.31	6.69	6.97	7.21	7.46	8.02		# of strides	12.74	13.00	14.18	15.48	25.74	29.66	3.92
velocity	7.33	8.45	7.92	7.47	7.17	6.93	6.70	6.23	7.22	7.85	7.69	7.05	6.46	7.77	6.74		

**Heat 2**

date 01-Oct-20

Yamanaka (2020) - 400m race analysis of men and women during 2020 season

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Takashima, Saki (JPN)</b> (2002) time	7.25	13.60	20.02	26.53	33.21	40.10	47.13	54.49	54.49	5 / 2							
reaction time 0.217 interval		6.35	6.42	6.51	6.68	6.89	7.03	7.36		# of strides	13.60	12.93	13.57	14.39	26.53	27.96	1.43
velocity	6.90	7.87	7.79	7.68	7.49	7.26	7.11	6.79	7.34	203.5	7.35	7.73	7.37	6.95	7.54	7.15	
<b>Iwata, Yuna (JPN)</b> (1997) time	7.00	13.15	19.44	25.99	33.00	40.38	48.06	56.34	56.34	6 / 4							
reaction time 0.152 interval		6.15	6.29	6.55	7.01	7.38	7.68	8.28		# of strides	13.15	12.84	14.39	15.96	25.99	30.35	4.36
velocity	7.14	8.13	7.95	7.63	7.13	6.78	6.51	6.04	7.10	7.60	7.79	6.95	6.27	7.70	6.59		

**Heat 1**

date 01-Oct-20

Yamanaka (2020) - 400m race analysis of men and women during 2020 season

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Aoyama, Seika (JPN)</b> (1996) time	6.86	12.59	18.49	24.66	31.11	38.00	45.28	53.29	53.29	6 / 1							
reaction time 0.185 interval		5.73	5.90	6.17	6.45	6.89	7.28	8.01		# of strides	12.59	12.07	13.34	15.29	24.66	28.63	3.97
velocity	7.29	8.73	8.47	8.10	7.75	7.26	6.87	6.24	7.51	210.0	7.94	8.29	7.50	6.54	8.11	6.99	
<b>Oshima, Airi (JPN)</b> (2000) time	7.04	12.93	19.04	25.49	32.21	39.18	46.37	53.96	53.96	4 / 2							
reaction time 0.172 interval		5.89	6.11	6.45	6.72	6.97	7.19	7.59	PB	# of strides	12.93	12.56	13.69	14.78	25.49	28.47	2.98
velocity	7.10	8.49	8.18	7.75	7.44	7.17	6.95	6.59	7.41	220.7	7.73	7.96	7.30	6.77	7.85	7.02	
<b>Takeishi, Konomi (JPN)</b> (199) time	6.89	12.74	18.84	25.23	31.89	38.95	46.31	54.19	54.19	5 / 3							
reaction time 0.157 interval		5.85	6.10	6.39	6.66	7.06	7.36	7.88		# of strides	12.74	12.49	13.72	15.24	25.23	28.96	3.73
velocity	7.26	8.55	8.20	7.82	7.51	7.08	6.79	6.35	7.38	197.0	7.85	8.01	7.29	6.56	7.93	6.91	

**2020 All Japan Corporate Championships (Kumagaya, JPN)****FINAL**

date 19-Sep-20

Yamanaka (2020) - 400m race analysis of men and women during 2020 season

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Aoyama, Seika (JPN)</b> (1996) time	7.05	12.96	19.05	25.37	31.92	38.76	45.96	53.55	53.55	7 / 1							
reaction time 0.234 interval		5.91	6.09	6.32	6.55	6.84	7.20	7.59		# of strides	12.96	12.41	13.39	14.79	25.37	28.18	2.81
velocity	7.09	8.46	8.21	7.91	7.63	7.31	6.94	6.59	7.47	7.72	8.06	7.47	6.76	7.88	7.10		
<b>Matsumoto, Nanako (JPN)</b> (time)	7.01	12.96	19.09	25.48	32.18	39.32	46.71	54.39	54.39	5 / 2							
reaction time 0.243 interval		5.95	6.13	6.39	6.70	7.14	7.39	7.68		# of strides	12.96	12.52	13.84	15.07	25.48	28.91	3.43
velocity	7.13	8.40	8.16	7.82	7.46	7.00	6.77	6.51	7.35	7.72	7.99	7.23	6.64	7.85	6.92		
<b>Takeishi, Konomi (JPN)</b> (199) time	6.96	12.95	19.15	25.67	32.48	39.59	46.90	54.43	54.43	4 / 3							
reaction time 0.190 interval		5.99	6.20	6.52	6.81	7.11	7.31	7.53		# of strides	12.95	12.72	13.92	14.84	25.67	28.76	3.09
velocity	7.18	8.35	8.06	7.67	7.34	7.03	6.84	6.64	7.35	7.72	7.86	7.18	6.74	7.79	6.95		

**2020 Golden Gala Pietro Mennea (Rome, ITA)****FINAL**

date 17-Sep-20

Omega Timing (2020) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Klaver, Lieke (NED)</b> (1998) time	6.7	12.2	17.9	23.9	30.1	36.8	43.7	50.98	50.98	4 / 1							
reaction time 0.200 interval		5.50	5.70	6.00	6.20	6.70	6.90	7.28	NUR PB	# of strides	12.20	11.70	12.90	14.18	23.90	27.08	3.18
velocity	7.46	9.09	8.77	8.33	8.06	7.46	7.25	6.87	7.85	189.5	8.20	8.55	7.75	7.05	8.37	7.39	
<b>Šerkšniene, Agnė (LTU)</b> (199) time	6.8	12.5	18.5	24.6	30.8	37.3	44.2	51.80	51.80	7 / 2							
reaction time 0.160 interval		5.70	6.00	6.10	6.20	6.50	6.90	7.60		# of strides	12.50	12.10	12.70	14.50	24.60	27.20	2.60
velocity	7.35	8.77	8.33	8.20	8.06	7.69	7.25	6.58	7.72	8.00	8.26	7.87	6.90	8.13	7.35		
<b>Swiety-Ersetic, Justyna (POL)</b> time	7.1	13.0	19.0	25.0	31.1	37.7	44.6	51.94	51.94	5 / 3							
reaction time 0.209 interval		5.90	6.00	6.00	6.10	6.60	6.90	7.34		# of strides	13.00	12.00	12.70	14.24	25.00	26.94	1.94
velocity	7.04	8.47	8.33	8.33	8.20	7.58	7.25	6.81	7.70	7.69	8.33	7.87	7.02	8.00	7.42		
<b>Schwab, Corinna (GER)</b> (199) time	6.8	12.6	18.6	24.8	31.0	37.6	44.6	52.12	52.12	8 / 4							
reaction time 0.155 interval		5.80	6.00	6.20	6.20	6.60	7.00	7.52		# of strides	12.60	12.20	12.80	14.52	24.80	27.32	2.52
velocity	7.35	8.62	8.33	8.06	8.06	7.58	7.14	6.65	7.67	7.94	8.20	7.81	6.89	8.06	7.32		
<b>Malikova, Barbora (CZE)</b> (20) time	7.2	13.1	19.1	25.2	31.3	37.8	44.7	52.17	52.17	3 / 5							
reaction time 0.133 interval		5.90	6.00	6.10	6.10	6.50	6.90	7.47		# of strides	13.10	12.10	12.60	14.37	25.20	26.97	1.77
velocity	6.94	8.47	8.33	8.20	8.20	7.69	7.25	6.69	7.67	7.63	8.26	7.94	6.96	7.94	7.42		
<b>da Silva, Tiffani (BRA)</b> (1999) time	7.0	12.8	18.8	25.0	31.1	37.6	44.6	52.44	52.44	2 / 6							
reaction time 0.179 interval		5.80	6.00	6.20	6.10	6.50	7.00	7.84		# of strides	12.80	12.20	12.60	14.84	25.00	27.44	2.44
velocity	7.14	8.62	8.33	8.06	8.20	7.69	7.14	6.38	7.63	7.81	8.20	7.94	6.74	8.00	7.29		
<b>Nielsen, Lavai (GBR)</b> (1996) time	6.8	12.5	18.5	24.6	30.9	37.6	44.7	52.45	52.45	6 / 7							
reaction time 0.154 interval		5.70	6.00	6.10	6.30	6.70	7.10	7.75		# of strides	12.50	12.10	13.00	14.85	24.60	27.85	3.25
velocity	7.35	8.77	8.33	8.20	7.94	7.46	7.04	6.45	7.63	8.00	8.26	7.69	6.73	8.13	7.18		
<b>Mangione, Alice (ITA)</b> (1997) time	7.3	13.3	19.4	25.6	31.9	38.6	45.5	52.78	52.78	9 / 8							
reaction time 0.192 interval		6.00	6.10	6.20	6.30	6.70	6.90	7.28		# of strides	13.30	12.30	13.00	14.18	25.60	27.18	1.58
velocity	6.85	8.33	8.20	8.06	7.94	7.46	7.25	6.87	7.58	7.52	8.13	7.69	7.05	7.81	7.36		
<b>Borga, Rebecca (ITA)</b> (1998) time	7.0	13.1	19.3	25.7	32.1	38.7	45.5	52.88	52.88	1 / 9							
reaction time 0.176 interval		6.10	6.20	6.40	6.40	6.60	6.80	7.38		# of strides	13.10	12.60	13.00	14.18	25.70	27.18	1.48
velocity	7.14	8.20	8.06	7.81	7.81	7.58	7.35	6.78	7.56	7.63	7.94	7.69	7.05	7.78	7.36		

## 2020 World Athletics Trials (Fuji, JPN)

FINAL		date	06-Sep-20		Yamanaka (2020) - 400m race analysis of men and women during 2020 season															
			50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
Aoyama, Seika (JPN) (1996)	time		6.93	12.83	18.92	25.13	31.55	38.37	45.66	53.41	53.41	5 / 1								
	reaction time	interval		5.90	6.09	6.21	6.42	6.82	7.29	7.75		# of strides	12.83	12.30	13.24	15.04	25.13	28.28	3.15	
		velocity	7.22	8.47	8.21	8.05	7.79	7.33	6.86	6.45	7.49	208.0	7.79	8.13	7.55	6.65	7.96	7.07		

## 2020 Memorial Van Damme (Brussels, BEL)

FINAL		date	04-Sep-20		Omega Timing (2020) - diamond league race analysis															
			50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
Baumgart-Witan, Iga (POL)	time		7.1	12.9	18.9	25.0	31.3	37.9	44.8	52.13	52.13	5 / 1								
	reaction time	0.157 interval		5.80	6.00	6.10	6.30	6.60	6.90	7.33		# of strides	12.90	12.10	12.90	14.23	25.00	27.13	2.13	
		velocity	7.04	8.62	8.33	8.20	7.94	7.58	7.25	6.82	7.67	183.2	7.75	8.26	7.75	7.03	8.00	7.37		
Horvat, Anita (SLO) (1996)	time		7.2	13.1	19.2	25.5	31.8	38.4	45.3	52.70	52.70	3 / 2								
	reaction time	0.188 interval		5.90	6.10	6.30	6.30	6.60	6.90	7.40		# of strides	13.10	12.40	12.90	14.30	25.50	27.20	1.70	
		velocity	6.94	8.47	8.20	7.94	7.94	7.58	7.25	6.76	7.59	186.2	7.63	8.06	7.75	6.99	7.84	7.35		
Wyciszewicz, Patrycja (POL)	time		7.1	13.1	19.1	25.3	31.7	38.4	45.3	52.78	52.78	2 / 3								
	reaction time	0.161 interval		6.00	6.00	6.20	6.40	6.70	6.90	7.48		# of strides	13.10	12.20	13.10	14.38	25.30	27.48	2.18	
		velocity	7.04	8.33	8.33	8.06	7.81	7.46	7.25	6.68	7.58	194.7	7.63	8.20	7.63	6.95	7.91	7.28		
Laus, Camille (BEL) (1993)	time		7.1	13.1	19.3	25.7	32.2	38.9	45.6	52.81	52.81	4 / 4								
	reaction time	0.190 interval		6.00	6.20	6.40	6.50	6.70	6.70	7.21		# of strides	13.10	12.60	13.20	13.91	25.70	27.11	1.41	
		velocity	7.04	8.33	8.06	7.81	7.69	7.46	7.46	6.93	7.57	196.2	7.63	7.94	7.58	7.19	7.78	7.38		
Mangione, Alice (ITA) (1997)	time		7.2	13.0	19.0	25.3	31.8	38.5	45.4	52.85	52.85	7 / 5								
	reaction time	0.195 interval		5.80	6.00	6.30	6.50	6.70	6.90	7.45		# of strides	13.00	12.30	13.20	14.35	25.30	27.55	2.25	
		velocity	6.94	8.62	8.33	7.94	7.69	7.46	7.25	6.71	7.57	197.0	7.69	8.13	7.58	6.97	7.91	7.26		
Couckuyt, Paulien (BEL) (19)	time		6.8	12.6	18.7	25.1	31.7	38.5	45.6	53.08	53.08	6 / 6								
	reaction time	0.149 interval		5.80	6.10	6.40	6.60	6.80	7.10	7.48		# of strides	12.60	12.50	13.40	14.58	25.10	27.98	2.88	
		velocity	7.35	8.62	8.20	7.81	7.58	7.35	7.04	6.68	7.54	201.0	7.94	8.00	7.46	6.86	7.97	7.15		
Brossier, Amandine (FRA) (19)	time		7.0	12.9	19.0	25.3	31.9	38.6	45.8	53.64	53.64	1 / 7								
	reaction time	0.177 interval		5.90	6.10	6.30	6.60	6.70	7.20	7.84		# of strides	12.90	12.40	13.30	15.04	25.30	28.34	3.04	
		velocity	7.14	8.47	8.20	7.94	7.58	7.46	6.94	6.38	7.46	197.0	7.75	8.06	7.52	6.65	7.91	7.06		
van Puyvelde, Margo (BEL)	time		7.2	13.2	19.4	25.9	32.6	39.5	46.6	54.32	54.32	8 / 8								
	reaction time	0.182 interval		6.00	6.20	6.50	6.70	6.90	7.10	7.72		# of strides	13.20	12.70	13.60	14.82	25.90	28.42	2.52	
		velocity	6.94	8.33	8.06	7.69	7.46	7.25	7.04	6.48	7.36	197.0	7.58	7.87	7.35	6.75	7.72	7.04		

## 2020 Bauhaus Galan (Stockholm, SWE)

FINAL		date	23-Aug-20		Omega Timing (2020) - diamond league race analysis															
			50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
Jonathas, Wadeline (USA) (19)	time		6.9	12.6	18.5	24.5	30.7	37.3	44.2	51.94	51.94	6 / 1								
	reaction time	0.190 interval		5.70	5.90	6.00	6.20	6.60	6.90	7.74		# of strides	12.60	11.90	12.80	14.64	24.50	27.44	2.94	
		velocity	7.25	8.77	8.47	8.33	8.06	7.58	7.25	6.46	7.70	194.0	7.94	8.40	7.81	6.83	8.16	7.29		
Nielsen, Lavai (GBR) (1996)	time		6.7	12.4	18.4	24.6	30.9	37.5	44.4	52.16	52.16	8 / 2								
	reaction time	0.140 interval		5.70	6.00	6.20	6.30	6.60	6.90	7.76		# of strides	12.40	12.20	12.90	14.66	24.60	27.56	2.96	
		velocity	7.46	8.77	8.33	8.06	7.94	7.58	7.25	6.44	7.67	194.0	8.06	8.20	7.75	6.82	8.13	7.26		
Klaver, Lieke (NED) (1998)	time		6.7	12.3	18.2	24.4	30.8	37.5	44.6	52.35	52.35	4 / 3								
	reaction time	0.191 interval		5.60	5.90	6.20	6.40	6.70	7.10	7.75		# of strides	12.30	12.10	13.10	14.85	24.40	27.95	3.55	
		velocity	7.46	8.93	8.47	8.06	7.81	7.46	7.04	6.45	7.64	194.0	8.13	8.26	7.63	6.73	8.20	7.16		
Knight, Jessie (GBR) (1994)	time		6.9	12.7	18.7	24.9	31.4	38.1	45.1	52.42	52.42	2 / 4								
	reaction time	0.146 interval		5.80	6.00	6.20	6.50	6.70	7.00	7.32		# of strides	12.70	12.20	13.20	14.32	24.90	27.52	2.62	
		velocity	7.25	8.62	8.33	8.06	7.69	7.46	7.14	6.83	7.63	194.0	7.87	8.20	7.58	6.98	8.03	7.27		
Vondrová, Lada (CZE) (1999)	time		6.9	12.7	18.9	25.2	31.5	38.1	45.0	52.44	52.44	5 / 5								
	reaction time	0.251 interval		5.80	6.20	6.30	6.30	6.60	6.90	7.44		# of strides	12.70	12.50	12.90	14.34	25.20	27.24	2.04	
		velocity	7.25	8.62	8.06	7.94	7.94	7.58	7.25	6.72	7.63	194.0	7.87	8.00	7.75	6.97	7.94	7.34		
Malikova, Barbora (CZE) (20)	time		7.2	13.4	19.5	25.7	32.1	38.7	45.7	53.13	53.13	7 / 6								
	reaction time	0.146 interval		6.20	6.10	6.20	6.40	6.60	7.00	7.43		# of strides	13.40	12.30	13.00	14.43	25.70	27.43	1.73	
		velocity	6.94	8.06	8.20	8.06	7.81	7.58	7.14	6.73	7.53	208.0	7.46	8.13	7.69	6.93	7.78	7.29		
Hjelmer, Moa (SWE) (1990)	time		6.9	12.7	18.7	25.1	31.7	38.8	46.1	53.79	53.79	3 / 7								
	reaction time	0.171 interval		5.80	6.00	6.40	6.60	7.10	7.30	7.69		# of strides	12.70	12.40	13.70	14.99	25.10	28.69	3.59	
		velocity	7.25	8.62	8.33	8.10	7.58	7.04	6.85	6.50	7.44	194.0	7.87	8.06	7.30	6.67	7.97	6.97		
Knezevic, Sandra (SWE) (19)	time		7.0	12.9	19.2	25.8	32.7	40.0	47.5	55.24	55.24	1 / 8								
	reaction time	0.158 interval		5.90	6.30	6.60	6.90	7.30	7.50	7.74		# of strides	12.90	12.90	14.20	15.24	25.80	29.44	3.64	
		velocity	7.14	8.47	7.94	7.58	7.25	6.85	6.67	6.46	7.24	194.0	7.75	7.75	7.04	6.56	7.75	6.79		

## 2020 Seiko Golden Grand Prix (Tokyo, JPN)

FINAL		date	23-Aug-20		Yamanaka (2020) - 400m race analysis of men and women during 2020 season															
			50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
Aoyama, Seika (JPN) (1996)	time		6.96	12.72	18.60	24.77	31.27	38.21	45.45	53.35	53.35	7 / 1								
	reaction time	0.205 interval		5.76	5.88	6.17	6.50	6.94	7.24	7.90		# of strides	12.72	12.05	13.44	15.14	24.77	28.58	3.81	
		velocity	7.18	8.68	8.50	8.10	7.69	7.20	6.91	6.33	7.50	194.0	7.86	8.30	7.44	6.61	8.07	7.00		
Matsumoto, Nanako (JPN) (19)	time		6.97	12.83	18.85	25.19	31.98	39.06	46.25	53.80	53.80	6 / 2								
	reaction time	0.183 interval		5.86	6.02	6.34	6.79	7.08	7.19	7.55		# of strides	12.83	12.36	13.87	14.74	25.19	28.61	3.42	

	velocity	7.17	8.53	8.31	7.89	7.36	7.06	6.95	6.62	7.43		7.79	8.09	7.21	6.78	7.94	6.99
<b>Oshima, Airi (JPN) (2000)</b>	time	7.16	13.12	19.20	25.54	32.11	38.93	46.09	53.97	53.97	4 / 3						
	reaction time	0.161															
	interval		5.96	6.08	6.34	6.57	6.82	7.16	7.88	<b>PB</b>	# of strides	13.12	12.42	13.39	15.04	25.54	28.43
	velocity	6.98	8.39	8.22	7.89	7.61	7.33	6.98	6.35	7.41		7.62	8.05	7.47	6.65	7.83	7.03
<b>Hirosawa, Mae (JPN) (1997)</b>	time	7.02	13.03	19.25	25.85	32.77	39.86	47.06	54.61	54.61	9 / 4						
	reaction time	0.179															
	interval		6.01	6.22	6.60	6.92	7.09	7.20	7.55		# of strides	13.03	12.82	14.01	14.75	25.85	28.76
	velocity	7.12	8.32	8.04	7.58	7.23	7.05	6.94	6.62	7.32		7.67	7.80	7.14	6.78	7.74	6.95
<b>Takeishi, Konomi (JPN) (199)</b>	time	7.05	13.03	19.19	25.80	32.64	39.78	47.04	54.63	54.63	8 / 5						
	reaction time	0.144															
	interval		5.98	6.16	6.61	6.84	7.14	7.26	7.59		# of strides	13.03	12.77	13.98	14.85	25.80	28.83
	velocity	7.09	8.36	8.12	7.56	7.31	7.00	6.89	6.59	7.32		7.67	7.83	7.15	6.73	7.75	6.94

## 2020 Shimane High School Championships (Izumo, JPN)

## FINAL

date 11-Jul-20

Shimizu (2020) - shimane high school championships 2020 - biomechanics data analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Watanabe, Suzuka (JPN) (20)</b>	time		13.36		27.00		41.91		58.26	58.26	7 / 1							
	reaction time																	
	interval				13.64		14.91		16.35		# of strides	13.36	13.64	14.91	16.35	27.00	31.26	4.26
	velocity		7.49		7.33		6.71		6.12	6.87		7.49	7.33	6.71	6.12	7.41	6.40	
<b>Hihara, Honaka (JPN)</b>	time		14.02		28.65		44.01		60.51	60.51	6 / 2							
	reaction time																	
	interval				14.63		15.36		16.50		# of strides	14.02	14.63	15.36	16.50	28.65	31.86	3.21
	velocity		7.13		6.84		6.51		6.06	6.61		7.13	6.84	6.51	6.06	6.98	6.28	
<b>Miyahara, Hina (JPN)</b>	time		14.37		28.98		44.62		61.12	61.12	8 / 3							
	reaction time																	
	interval				14.61		15.84		16.50		# of strides	14.37	14.61	15.64	16.50	28.98	32.14	3.16
	velocity		6.96		6.84		6.39		6.06	6.54		6.96	6.84	6.39	6.06	6.90	6.22	
<b>Matsumura, Ai (JPN)</b>	time		14.04		28.40		44.39		61.78	61.78	4 / 4							
	reaction time																	
	interval				14.36		15.99		17.39		# of strides	14.04	14.36	15.99	17.39	28.40	33.38	4.98
	velocity		7.12		6.96		6.25		5.75	6.47		7.12	6.96	6.25	5.75	7.04	5.99	
<b>Yoshimoto, Chika (JPN)</b>	time		14.15		28.98		45.85		65.53	65.53	5 / 5							
	reaction time																	
	interval				14.83		16.87		19.68		# of strides	14.15	14.83	16.87	19.68	28.98	36.55	7.57
	velocity		7.07		6.74		5.93		5.08	6.10		7.07	6.74	5.93	5.08	6.90	5.47	

## 2019 Japanese National U18/U20 Championships (Hiroshima, JPN)

## U20 FINAL

date 18-Oct-19

Kijima (2019) - research on athlete performance and technique- 2019 data book

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Saki, Shima (JPN)</b>	time	7.57	14.10	20.75	27.48	34.24	41.01	47.81	54.63	54.63	4 / 1							
	reaction time	0.241																
	interval		6.53	6.65	6.73	6.76	6.77	6.80	6.82		# of strides	14.10	13.38	13.53	13.62	27.48	27.15	-0.33
	velocity	6.61	7.66	7.52	7.43	7.40	7.39	7.35	7.33	7.32		7.09	7.47	7.39	7.34	7.28	7.37	
<b>Fuji, Mio (JPN)</b>	time	7.16	13.43	19.79	26.46	33.24	40.21	47.34	54.73	54.73	7 / 2							
	reaction time	0.172																
	interval		6.27	6.36	6.67	6.78	6.97	7.13	7.39		# of strides	13.43	13.03	13.75	14.52	26.46	28.27	1.81
	velocity	6.98	7.97	7.86	7.50	7.37	7.17	7.01	6.77	7.31		7.45	7.67	7.27	6.89	7.56	7.07	
<b>Yoshioka, Nana (JPN)</b>	time	7.41	14.02	20.67	27.43	34.24	41.05	47.94	55.14	55.14	3 / 3							
	reaction time	0.197																
	interval		6.61	6.65	6.76	6.81	6.81	6.89	7.20		# of strides	14.02	13.41	13.62	14.09	27.43	27.71	0.28
	velocity	6.75	7.56	7.52	7.40	7.34	7.34	7.26	6.94	7.25		7.13	7.46	7.34	7.10	7.29	7.22	
<b>Kawasaki, Natsumi (JPN) (20)</b>	time	7.27	13.64	20.15	26.89	33.72	40.71	47.97	55.50	55.50	5 / 4							
	reaction time	0.215																
	interval		6.37	6.51	6.74	6.83	6.99	7.26	7.53		# of strides	13.64	13.25	13.82	14.79	26.89	28.61	1.72
	velocity	6.88	7.85	7.68	7.42	7.32	7.15	6.89	6.64	7.21		205.0	7.33	7.55	7.24	6.76	7.44	6.99
<b>Achy, Shiori (JPN) (2003)</b>	time	7.28	13.53	19.90	26.61	33.51	40.59	47.92	55.60	55.60	6 / 5							
	reaction time	0.185																
	interval		6.25	6.37	6.71	6.90	7.08	7.33	7.68		# of strides	13.53	13.08	13.98	15.01	26.61	28.99	2.38
	velocity	6.87	8.00	7.85	7.45	7.25	7.06	6.82	6.51	7.19		208.2	7.39	7.65	7.15	6.66	7.52	6.90

## U18 FINAL (300m)

date 18-Oct-19

Kijima (2019) - research on athlete performance and technique- 2019 data book

		50m	100m	150m	200m	250m	300m	Official Time	Lane / Place	0-100m	100-200m	200-300m	0-200m	Differential
<b>Kudo, Mei (JPN) (2002)</b>	time		12.90		25.48		39.22	39.22	4 / 1					
	reaction time	0.193												
	interval				12.58		13.74			# of strides	12.90	12.58	13.74	25.48
	velocity		7.75		7.95		7.28	7.65	150.2		7.75	7.95	7.28	7.85
<b>Matsuoka, Moe (JPN) (2003)</b>	time		13.20		25.78		39.41	39.41	3 / 2					100m-300m
	reaction time	0.197								# of strides	13.20	12.58	13.63	25.78
	interval				12.58		13.63	7.61	159.2		7.58	7.95	7.34	7.76
	velocity		7.58		7.95		7.34							7.63
<b>Ono, Mizuna (JPN) (2002)</b>	time		12.69		25.16		39.52	39.52	5 / 3					100m-300m
	reaction time	0.166								# of strides	12.69	12.47	14.36	25.16
	interval				12.47		14.36	7.59	147.5		7.88	8.02	6.96	7.95
	velocity		7.88		8.02		6.96							7.45
<b>Mizuguchi, Moe (JPN) (2002)</b>	time		12.98		25.54		39.53	39.53	6 / 4					100m-300m
	reaction time	0.192								# of strides	12.98	12.56	13.99	25.54
	interval				12.56		13.99	7.59	149.2		7.70	7.96	7.15	7.83
	velocity		7.70		7.96		7.15							7.53
<b>Iida, Keiko (JPN) (2002)</b>	time		13.50		26.37		40.07	40.07	8 / 5					100m-300m
	reaction time	0.192								# of strides	13.50	12.87	13.70	26.37
	interval				12.87		13.70	7.49	158.0		7.41	7.77	7.30	7.58
	velocity		7.41		7.77		7.30							7.53
<b>Takeuchi, Kokoro (JPN)</b>	time		13.57		26.46		40.13	40.13	1 / 6					100m-300m
	reaction time	0.194								# of strides	13.57	12.89	13.67	26.46
	interval				12.89		13.67	7.48	7.37		7.76	7.32		7.56
	velocity		7.37		7.76		7.32							



reaction time	0.176	interval		12.78	14.20			# of strides	13.20	12.78	14.20	25.98	26.98
velocity			7.58	7.82	7.04		7.47	159.7	7.58	7.82	7.04	7.70	7.41
<b>Funabiki, Ruka (JPN) (2002)</b>	time	13.50	26.84	40.82	40.82			7 / 8					<b>100m-300m</b>
reaction time	0.176	interval	13.34	13.98				# of strides	13.50	13.34	13.98	26.84	27.32
velocity			7.41	7.50	7.15		7.35	152.7	7.41	7.50	7.15	7.45	7.32

## 2019 IAAF World Championships (Doha, QAT)

FINAL	date	03-Oct-19	Yamanaka (2019) - race analysis of men and women 400m competition																
			50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Naser, Salwa Eid (BRN) (1991)</b>	time		6.71	12.09	17.57	23.20	29.03	35.10	41.43	48.14	48.14	5 / 1							
reaction time	0.186	interval		5.38	5.48	5.63	5.83	6.07	6.33	6.71	<b>NR PB</b>	# of strides	12.09	11.11	11.90	13.04	23.20	24.94	1.74
velocity			7.45	9.29	9.12	8.88	8.58	8.24	7.90	7.45	8.31	181.2	8.27	9.00	8.40	7.67	8.62	8.02	
<b>Miller-Uibo, Shaunae (BAH)</b>	time		6.58	12.06	17.72	23.61	29.63	35.67	41.81	48.37	48.37	7 / 2							
reaction time	0.145	interval		5.48	5.66	5.89	6.02	6.04	6.14	6.56	<b>NR PB</b>	# of strides	12.06	11.55	12.06	12.70	23.61	24.76	1.15
velocity			7.60	9.12	8.83	8.49	8.31	8.28	8.14	7.62	8.27	173.0	8.29	8.66	8.29	7.87	8.47	8.08	
<b>Jackson, Shericka (JAM) (1991)</b>	time		6.64	12.19	17.84	23.70	29.69	35.96	42.47	49.47	49.47	3 / 3							
reaction time	0.184	interval		5.55	5.65	5.86	5.99	6.27	6.51	7.00	<b>PB</b>	# of strides	12.19	11.51	12.26	13.51	23.70	25.77	2.07
velocity			7.53	9.01	8.85	8.53	8.35	7.97	7.68	7.14	8.09	193.5	8.20	8.69	8.16	7.40	8.44	7.76	
<b>Jonathas, Wadeline (USA) (1)</b>	0.181	no information available								<b>PB</b>	49.60	6 / 4						# of strides	188.0
<b>Francis, Phyllis (USA) (1992)</b>	0.197	no information available								<b>PB</b>	49.61	8 / 5						# of strides	177.0
<b>McPherson, Stephanie Ann (I)</b>	0.124	no information available									50.89	4 / 6						# of strides	189.0
<b>Świąty-Ersetic, Justyna (POL)</b>	0.228	no information available									50.95	9 / 7						# of strides	201.5
<b>Baumgart-Witan, Iga (POL) (1)</b>	0.187	no information available									51.29	2 / 8						# of strides	181.0

Semi-Final 3	date	01-Oct-19	Yamanaka (2019) - race analysis of men and women 400m competition																
			50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>McPherson, Stephanie Ann (I)</b>	time		6.71	12.28	17.91	23.81	29.94	36.38	43.16	50.70	50.70	6 / 1							
reaction time	0.134	interval		5.57	5.63	5.90	6.13	6.44	6.78	7.54		# of strides	12.28	11.53	12.57	14.32	23.81	26.89	3.08
velocity			7.45	8.98	8.88	8.47	8.16	7.76	7.37	6.63	7.89	187.5	8.14	8.67	7.96	6.98	8.40	7.44	
<b>Świąty-Ersetic, Justyna (POL)</b>	time		6.91	12.65	18.45	24.41	30.58	36.99	43.71	50.96	50.96	5 / 2							
reaction time	0.213	interval		5.74	5.80	5.96	6.17	6.41	6.72	7.25		# of strides	12.65	11.76	12.58	13.97	24.41	26.55	2.14
velocity			7.24	8.71	8.62	8.39	8.10	7.80	7.44	6.90	7.85	204.0	7.91	8.50	7.95	7.16	8.19	7.53	

Semi-Final 2	date	01-Oct-19	Yamanaka (2019) - race analysis of men and women 400m competition																
			50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Miller-Uibo, Shaunae (BAH)</b>	time		6.57	12.13	17.85	23.83	29.92	36.06	42.43	49.66	49.66	6 / 1							
reaction time	0.144	interval		5.56	5.72	5.98	6.09	6.14	6.37	7.23		# of strides	12.13	11.70	12.23	13.60	23.83	25.83	2.00
velocity			7.61	8.99	8.74	8.36	8.21	8.14	7.85	6.92	8.05	173.0	8.24	8.55	8.18	7.35	8.39	7.74	
<b>Jonathas, Wadeline (USA) (1)</b>	time		6.54	11.92	17.40	23.23	29.39	36.01	42.87	50.07	50.07	4 / 2							
reaction time	0.202	interval		5.38	5.48	5.83	6.16	6.62	6.86	7.20	<b>PB</b>	# of strides	11.92	11.31	12.78	14.06	23.23	26.84	3.61
velocity			7.65	9.29	9.12	8.58	8.12	7.55	7.29	6.94	7.99	188.0	8.39	8.84	7.82	7.11	8.61	7.45	
<b>Jackson, Shericka (JAM) (1991)</b>	time		6.91	12.60	18.37	24.40	30.61	36.96	43.41	50.10	50.10	7 / 3							
reaction time	0.181	interval		5.69	5.77	6.03	6.21	6.35	6.45	6.69		# of strides	12.60	11.80	12.56	13.14	24.40	25.70	1.30
velocity			7.24	8.79	8.67	8.29	8.05	7.87	7.75	7.47	7.98	193.0	7.94	8.47	7.96	7.61	8.20	7.78	

Semi-Final 1	date	01-Oct-19	Yamanaka (2019) - race analysis of men and women 400m competition																
			50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Naser, Salwa Eid (BRN) (1991)</b>	time		6.79	12.15	17.58	23.33	29.45	35.93	42.71	49.79	49.79	7 / 1							
reaction time	0.185	interval		5.36	5.43	5.75	6.12	6.48	6.78	7.08		# of strides	12.15	11.18	12.60	13.86	23.33	26.46	3.13
velocity			7.36	9.33	9.21	8.70	8.17	7.72	7.37	7.06	8.03	183.0	8.23	8.94	7.94	7.22	8.57	7.56	
<b>Francis, Phyllis (USA) (1992)</b>	time		6.82	12.33	17.95	23.93	30.15	36.65	43.26	50.22	50.22	5 / 2							
reaction time	0.218	interval		5.51	5.62	5.98	6.22	6.50	6.61	6.96		# of strides	12.33	11.60	12.72	13.57	23.93	26.29	2.36
velocity			7.33	9.07	8.90	8.36	8.04	7.69	7.56	7.18	7.96	175.5	8.11	8.62	7.86	7.37	8.36	7.61	
<b>Baumgart-Witan, Iga (POL) (1)</b>	time		6.99	12.70	18.48	24.49	30.71	37.24	43.97	51.02	51.02	6 / 3							
reaction time	0.192	interval		5.71	5.78	6.01	6.22	6.53	6.73	7.05	<b>PB</b>	# of strides	12.70	11.79	12.75	13.78	24.49	26.53	2.04
velocity			7.15	8.76	8.65	8.32	8.04	7.66	7.43	7.09	7.84	178.7	7.87	8.48	7.84	7.26	8.17	7.54	

## 2019 The Match - Europe v USA (Minsk, BLR)

FINAL	date	09-Sep-19	European Athletics (2019) - race analysis																
			50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Jonathas, Wadeline (USA) (1)</b>	time		12.42			24.17			36.87		51.01	4 / 1							
reaction time	0.173	interval				11.75			12.70		14.14	# of strides	12.42	11.75	12.70	14.14	24.17	26.84	2.67
velocity				8.05		8.51			7.87		7.07	193.5	8.05	8.51	7.87	7.07	8.27	7.45	
<b>Felix, Allyson (USA) (1985)</b>	time		12.49			25.31			37.70		51.36	8 / 2							
reaction time	0.187	interval				12.82			12.39		13.66	# of strides	12.49	12.82	12.39	13.66	25.31	26.05	0.74
velocity				8.01		7.80			8.07		7.32	186.0	8.01	7.80	8.07	7.32	7.90	7.68	
<b>Baumgart-Witan, Iga (POL) (1)</b>	time		12.97			24.93			37.65		51.52	7 / 3							
reaction time	0.265	interval				11.96			12.72		13.87	# of strides	12.97	11.96	12.72	13.87	24.93	26.59	1.66
velocity				7.71		8.36			7.86		7.21	182.0	7.71	8.36	7.86	7.21	8.02	7.52	
<b>Williams, Jodie (GBR) (1993)</b>	time		12.31			24.28			37.36		51.83	9 / 4							
reaction time	0.174	interval				11.97			13.08		14.47	# of strides	12.31	11.97	13.08	14.47	24.28	27.55	3.27
velocity				8.12		8.35			7.65		6.91	188.0	8.12	8.35	7.65	6.91	8.24	7.26	
<b>Okolo, Courtney (USA) (1991)</b>	time		12.40			24.33			37.02		52.20	6 / 5							
reaction time	0.228	interval				11.93			12.69		15.18	# of strides	12.40	11.93	12.69	15.18	24.33	27.87	3.54

velocity	8.06	8.38	7.88	6.59	7.66	202.7	8.06	8.38	7.88	6.59	8.22	7.18	
<b>Świąty-Ersetic, Justyna (POL)</b> time	12.82	24.68	37.58	52.35	52.35	5 / 6							
reaction time 0.301 interval		11.86	12.90	14.77		# of strides	12.82	11.86	12.90	14.77	24.68	27.67	2.99
velocity	7.80	8.43	7.75	6.77	7.64	205.0	7.80	8.43	7.75	6.77	8.10	7.23	
<b>Miller, Polina (RUS) (2000)</b> time	12.48	24.13	37.06	52.79	52.79	3 / 7							
reaction time 0.192 interval		11.65	12.93	15.73		# of strides	12.48	11.65	12.93	15.73	24.13	28.66	4.53
velocity	8.01	8.58	7.73	6.36	7.58	202.0	8.01	8.58	7.73	6.36	8.29	6.98	
<b>Mu, Athing (USA) (2002)</b> time	12.97	25.66	39.29	54.34	54.34	2 / 8							
reaction time 0.182 interval		12.69	13.63	15.05		# of strides	12.97	12.69	13.63	15.05	25.66	28.68	3.02
velocity	7.71	7.88	7.34	6.64	7.36		7.71	7.88	7.34	6.64	7.79	6.97	

**2019 Memorial van Damme (Brussels, BEL)****National FINAL**

date 06-Sep-19

Omega Timing (2019) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Okolo, Courtney (USA) (199)</b> time	7.0	12.7	18.6	24.7	31.1	37.7	44.6	52.13	52.13	6 / 1							
reaction time 0.213 interval		5.7	5.9	6.1	6.4	6.6	6.9	7.5		# of strides	12.70	12.00	13.00	14.43	24.70	27.43	2.73
velocity	7.14	8.77	8.47	8.20	7.81	7.58	7.25	6.64	7.67		7.87	8.33	7.69	6.93	8.10	7.29	
<b>Vervae, Imke (BEL) (1993)</b> time	6.8	12.6	18.6	24.9	31.5	38.5	45.7	53.22	53.22	7 / 2							
reaction time 0.143 interval		5.8	6.0	6.3	6.6	7.0	7.2	7.5	<b>PB</b>	# of strides	12.60	12.30	13.60	14.72	24.90	28.32	3.42
velocity	7.35	8.62	8.33	7.94	7.58	7.14	6.94	6.85	7.52		7.94	8.13	7.35	6.79	8.03	7.06	
<b>Laus, Camille (BEL) (1993)</b> time	6.8	12.4	18.3	24.5	30.9	37.8	45.2	53.23	53.23	5 / 3							
reaction time 0.173 interval		5.6	5.9	6.2	6.4	6.9	7.4	8.0		# of strides	12.40	12.10	13.30	15.43	24.50	28.73	4.23
velocity	7.35	8.93	8.47	8.06	7.81	7.25	6.76	6.23	7.51		8.06	8.26	7.52	6.48	8.16	6.96	
<b>Depuydt, Manon (BEL) (199)</b> time	6.8	12.4	18.2	24.5	31.2	38.5	45.8	53.59	53.59	3 / 4							
reaction time 0.129 interval		5.6	5.8	6.3	6.7	7.3	7.3	7.8		# of strides	12.40	12.10	14.00	15.09	24.50	29.09	4.59
velocity	7.35	8.93	8.62	7.94	7.46	6.85	6.85	6.42	7.46		8.06	8.26	7.14	6.63	8.16	6.88	
<b>Spelmeyer, Ruth Sophia (GE)</b> time	7.0	13.0	19.0	25.3	31.9	38.6	45.8	53.62	53.62	8 / 5							
reaction time 0.170 interval		6.0	6.0	6.3	6.6	6.7	7.2	7.8		# of strides	13.00	12.30	13.30	15.02	25.30	28.32	3.02
velocity	7.14	8.33	8.33	7.94	7.58	7.46	6.94	6.39	7.46		7.69	8.13	7.52	6.66	7.91	7.06	
<b>Vandi, Elisabetta (ITA) (2000)</b> time	7.0	12.8	18.9	25.4	32.2	39.1	46.4	54.20	54.20	2 / 6							
reaction time 0.214 interval		5.8	6.1	6.5	6.8	6.9	7.3	7.8		# of strides	12.80	12.60	13.70	15.10	25.40	28.80	3.40
velocity	7.14	8.62	8.20	7.69	7.35	7.25	6.85	6.41	7.38		7.81	7.94	7.30	6.62	7.87	6.94	
<b>Wimbley, Shakima (USA) (19)</b> time	6.6	12.2	18.0	24.1					dnf	4 / --							
reaction time 0.152 interval		5.6	5.8	6.1						# of strides	12.20	11.90			24.10		
velocity	7.58	8.93	8.62	8.20							8.20	8.40			8.30		

**2019 Weltklasse (Zürich, SUI)****FINAL**

date 29-Aug-19

Omega Timing (2019) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Naser, Salwa Eid (BRN) (199)</b> time	6.9	12.3	18.0	23.9	30.1	36.5	43.3	50.24	50.24	4 / 1							
reaction time 0.145 interval		5.4	5.7	5.9	6.2	6.4	6.8	6.9		# of strides	12.30	11.60	12.60	13.74	23.90	26.34	2.44
velocity	7.25	9.26	8.77	8.47	8.06	7.81	7.35	7.20	7.96		184.0	8.13	8.62	7.94	7.28	8.37	7.59
<b>Wimbley, Shakima (USA) (19)</b> time	6.7	12.3	18.1	24.2	30.6	37.2	44.0	51.21	51.21	3 / 2							
reaction time 0.145 interval		5.6	5.8	6.1	6.4	6.6	6.8	7.2		# of strides	12.30	11.90	13.00	14.01	24.20	27.01	2.81
velocity	7.46	8.93	8.62	8.20	7.81	7.58	7.35	6.93	7.81		182.0	8.13	8.40	7.69	7.14	8.26	7.40
<b>de Witte, Lisanne (NED) (19)</b> time	7.0	12.8	18.6	24.6	30.8	37.4	44.1	51.30	51.30	1 / 3							
reaction time 0.167 interval		5.8	5.8	6.0	6.2	6.6	6.7	7.2		# of strides	12.80	11.80	12.80	13.90	24.60	26.70	2.10
velocity	7.14	8.62	8.62	8.33	8.06	7.58	7.46	6.94	7.80		7.81	8.47	7.81	7.19	8.13	7.49	
<b>Świąty-Ersetic, Justyna (POL)</b> time	7.1	12.8	18.7	24.8	31.1	37.5	44.3	51.54	51.54	6 / 4							
reaction time 0.217 interval		5.7	5.9	6.1	6.3	6.4	6.8	7.2		# of strides	12.80	12.00	12.70	14.04	24.80	26.74	1.94
velocity	7.04	8.77	8.47	8.20	7.94	7.81	7.35	6.91	7.76		207.7	7.81	8.33	7.87	7.12	8.06	7.48
<b>Nielsen, Laviai (GBR) (1988)</b> time	6.8	12.4	18.4	24.6	31.0	37.5	44.3	51.70	51.70	7 / 5							
reaction time 0.157 interval		5.6	6.0	6.2	6.4	6.5	6.8	7.4		# of strides	12.40	12.20	12.90	14.20	24.60	27.10	2.50
velocity	7.35	8.93	8.33	8.06	7.81	7.69	7.35	6.76	7.74		194.5	8.06	8.20	7.75	7.04	8.13	7.38
<b>McPherson, Stephanie Ann</b> (time)	6.9	12.5	18.4	24.4	30.7	37.3	44.3	51.90	51.90	5 / 6							
reaction time 0.126 interval		5.6	5.9	6.0	6.3	6.6	7.0	7.6		# of strides	12.50	11.90	12.90	14.60	24.40	27.50	3.10
velocity	7.25	8.93	8.47	8.33	7.94	7.58	7.14	6.58	7.71		190.0	8.00	8.40	7.75	6.85	8.20	7.27
<b>Ellis, Kendall (USA) (1996)</b> time	6.8	12.5	18.3	24.4	30.9	37.7	44.7	51.92	51.92	2 / 7							
reaction time 0.202 interval		5.7	5.8	6.1	6.5	6.8	7.0	7.2		# of strides	12.50	11.90	13.30	14.22	24.40	27.52	3.12
velocity	7.35	8.77	8.62	8.20	7.69	7.35	7.14	6.93	7.70		8.00	8.40	7.52	7.03	8.20	7.27	
<b>Beard, Jessica (USA) (1989)</b> time	7.1	12.8	18.9	25.4	31.9	38.6	45.4	52.60	52.60	8 / 8							
reaction time 0.244 interval		5.7	6.1	6.5	6.5	6.7	6.8	7.2		# of strides	12.80	12.60	13.20	14.00	25.40	27.20	1.80
velocity	7.04	8.77	8.20	7.69	7.69	7.46	7.35	6.94	7.60		7.81	7.94	7.58	7.14	7.87	7.35	

**2019 Meeting de Paris (Paris, FRA)****FINAL**

date 24-Aug-19

Omega Timing (2019) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>McPherson, Stephanie Ann</b> (time)	12.6		24.5		37.4		51.11		51.11	7 / 1							
reaction time 0.136 interval			11.9		12.9		13.7			# of strides	12.60	11.90	12.90	13.71	24.50	26.61	2.11
velocity	7.94		8.40		7.75		7.29		7.83		7.94	8.40	7.75	7.29	8.16	7.52	

Ellis, Kendall (USA) (1996)	time	12.3	24.5	37.2	51.21	51.21	6 / 2										
	reaction time	0.205		12.2	12.7	14.0		# of strides	12.30	12.20	12.70	14.01	24.50	26.71	2.21		
	velocity	8.13	8.20	7.87	7.14	7.81	186.2	8.13	8.20	7.87	7.14	8.16	7.49				
Wimbley, Shakima (USA) (19)	time	12.3	24.2	37.0	51.50	51.50	5 / 3										
	reaction time	0.164		11.9	12.8	14.5		# of strides	12.30	11.90	12.80	14.50	24.20	27.30	3.10		
	velocity	8.13	8.40	7.81	6.90	7.77	180.2	8.13	8.40	7.81	6.90	8.26	7.33				
Francis Phyllis (USA) (1992)	time	12.1	23.7	36.8	51.56	51.56	4 / 4										
	reaction time	0.237		11.6	13.1	14.8		# of strides	12.10	11.60	13.10	14.76	23.70	27.86	4.16		
	velocity	8.26	8.62	7.63	6.78	7.76	179.2	8.26	8.62	7.63	6.78	8.44	7.18				
de Witte, Lisanne (NED) (19)	time	12.8	25.0	37.9	51.83	51.83	8 / 5										
	reaction time	0.196		12.2	12.9	13.9		# of strides	12.80	12.20	12.90	13.93	25.00	26.83	1.83		
	velocity	7.81	8.20	7.75	7.18	7.72	194.0	7.81	8.20	7.75	7.18	8.00	7.45				
Botlogetswe, Christine (BOT)	time	12.7	24.9	37.8	52.02	52.02	2 / 6										
	reaction time	0.199		12.2	12.9	14.2		# of strides	12.70	12.20	12.90	14.22	24.90	27.12	2.22		
	velocity	7.87	8.20	7.75	7.03	7.69	185.0	7.87	8.20	7.75	7.03	8.03	7.37				
Sananes, Déborah (FRA) (19)	time	12.5	24.5	37.6	52.04	52.04	3 / 7										
	reaction time	0.227		12.0	13.1	14.4		# of strides	12.50	12.00	13.10	14.44	24.50	27.54	3.04		
	velocity	8.00	8.33	7.63	6.93	7.69	195.2	8.00	8.33	7.63	6.93	8.16	7.26				
Brossier, Amandine (FRA) (19)	time	12.6	24.5	37.6	53.29	53.29	1 / 8										
	reaction time	0.172		11.9	13.1	15.7		# of strides	12.60	11.90	13.10	15.69	24.50	28.79	4.29		
	velocity	7.94	8.40	7.63	6.37	7.51	204.7	7.94	8.40	7.63	6.37	8.16	6.95				

## 2019 Japanese National High School Championships (Okinawa, JPN)

## FINAL

date 04-Aug-19

Kota (2019) - 72nd high school championships: JAF scientific committee - biomechanics data collection

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
Takashima, Saki (JPN) (2002)	time	7.29	13.53	19.75	26.03	32.51	39.30	46.20	53.44	5 / 1								
	reaction time		6.24	6.22	6.28	6.48	6.79	6.90	7.24		# of strides	13.53	12.50	13.27	14.14	26.03	27.41	1.38
	velocity	6.86	8.01	8.04	7.96	7.72	7.36	7.25	6.91	7.49	7.39	8.00	7.54	7.07	7.68	7.30		
Yoshioka, Rina (JPN) (2001)	time	7.39	13.82	20.23	26.73	33.31	40.04	47.02	54.41	7 / 2								
	reaction time		6.43	6.41	6.50	6.58	6.73	6.98	7.39	PB	# of strides	13.82	12.91	13.31	14.37	26.73	27.68	0.95
	velocity	6.77	7.78	7.80	7.69	7.60	7.43	7.16	6.77	7.35	7.24	7.75	7.51	6.96	7.48	7.23		
Sudo, Mio (JPN) (2002)	time	7.29	13.57	19.98	26.56	33.26	40.21	47.20	54.65	3 / 3								
	reaction time		6.28	6.41	6.58	6.70	6.95	6.99	7.45	PB	# of strides	13.57	12.99	13.65	14.44	26.56	28.09	1.53
	velocity	6.86	7.96	7.80	7.60	7.46	7.19	7.15	6.71	7.32	7.37	7.70	7.33	6.93	7.53	7.12		
Takashima, Natsumi (JPN) (2)	time	7.36	13.74	20.13	26.71	33.41	40.26	47.38	54.94	8 / 4								
	reaction time		6.38	6.39	6.58	6.70	6.85	7.12	7.56		# of strides	13.74	12.97	13.55	14.68	26.71	28.23	1.52
	velocity	6.79	7.84	7.82	7.60	7.46	7.30	7.02	6.61	7.28	7.28	7.71	7.38	6.81	7.49	7.08		
Nakano, Nano (JPN) (2001)	time	7.36	13.72	20.13	26.70	33.47	40.46	47.55	55.07	4 / 5								
	reaction time		6.36	6.41	6.57	6.77	6.99	7.09	7.52	PB	# of strides	13.72	12.98	13.76	14.61	26.70	28.37	1.67
	velocity	6.79	7.86	7.80	7.61	7.39	7.15	7.05	6.65	7.26	7.29	7.70	7.27	6.84	7.49	7.05		
Achy, Shiori (JPN) (2003)	time	7.32	13.46	19.80	26.33	33.13	40.13	47.40	55.11	6 / 6								
	reaction time		6.14	6.34	6.53	6.80	7.00	7.27	7.71	PB	# of strides	13.46	12.87	13.80	14.98	26.33	28.78	2.45
	velocity	6.83	8.14	7.89	7.66	7.35	7.14	6.88	6.49	7.26	7.43	7.77	7.25	6.68	7.60	6.95		
Tsugawa, Rui (JPN) (2001)	time	7.47	13.90	20.42	26.97	33.65	40.63	47.91	55.73	2 / 7								
	reaction time		6.43	6.52	6.55	6.68	6.98	7.28	7.82		# of strides	13.90	13.07	13.66	15.10	26.97	28.76	1.79
	velocity	6.69	7.78	7.67	7.63	7.49	7.16	6.87	6.39	7.18	7.19	7.65	7.32	6.62	7.42	6.95		
Irie, Akiho (JPN) (2001)	time	7.34	13.57	20.07	26.75	33.60	40.89	48.51	56.58	1 / 8								
	reaction time		6.23	6.50	6.68	6.85	7.29	7.62	8.07		# of strides	13.57	13.18	14.14	15.69	26.75	29.83	3.08
	velocity	6.81	8.03	7.69	7.49	7.30	6.86	6.56	6.20	7.07	7.37	7.59	7.07	6.37	7.48	6.70		

## 2019 Athletissima (Lausanne, SUI)

## FINAL

date 05-Jul-19

Omega Timing (2019) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Naser, Salwa Eid (BRN) (199)	time	12.3	23.9	36.1	49.17	49.17	5 / 1										
	reaction time	0.168		11.6	12.2	13.1		# of strides	12.30	11.60	12.20	13.07	23.90	25.27	1.37		
	velocity	8.13	8.62	8.20	7.65	8.14	184.2	8.13	8.62	8.20	7.65	8.37	7.91				
Seyni, Aminatou (NIG) (1996)	time	12.6	24.4	36.6	49.19	49.19	4 / 2										
	reaction time	0.223		11.8	12.2	12.6		# of strides	12.60	11.80	12.20	12.59	24.40	24.79	0.39		
	velocity	7.94	8.47	8.20	7.94	8.13	182.0	7.94	8.47	8.20	7.94	8.20	8.07				
McPherson, Stephenie Ann	time	12.6	24.3	36.8	50.88	50.88	7 / 3										
	reaction time	0.140		11.7	12.5	14.1		# of strides	12.60	11.70	12.50	14.08	24.30	26.58	2.28		
	velocity	7.94	8.55	8.00	7.10	7.86	182.0	7.94	8.55	8.00	7.10	8.23	7.52				
Nielsen, Lavai (GBR) (1996)	time	12.5	24.6	37.4	51.31	51.31	1 / 4										
	reaction time	0.160		12.1	12.8	13.9		# of strides	12.50	12.10	12.80	13.91	24.60	26.71	2.11		
	velocity	8.00	8.26	7.81	7.19	7.80	182.0	8.00	8.26	7.81	7.19	8.13	7.49				
Botlogetswe, Christine (BOT)	time	12.5	24.4	37.5	51.50	51.50	3 / 5										
	reaction time	0.187		11.9	13.1	14.0		# of strides	12.50	11.90	13.10	14.00	24.40	27.10	2.70		
	velocity	8.00	8.40	7.63	7.14	7.77	182.0	8.00	8.40	7.63	7.14	8.20	7.38				
Świąty-Ersetic, Justyna (POL)	time	12.8	24.9	37.7	51.73	51.73	2 / 6										
	reaction time	0.204		12.1	12.8	14.0		# of strides	12.80	12.10	12.80	14.03	24.90	26.83	1.93		
	velocity																



velocity	7.81	8.26	7.81	7.13	7.73		7.81	8.26	7.81	7.13	8.03	7.45	
<b>Okolo, Courtney (USA) (199)</b> time	12.5	24.1	36.7	51.85	51.85	8 / 7							
reaction time 0.217 interval		11.6	12.6	15.2		# of strides	12.50	11.60	12.60	15.15	24.10	27.75	3.65
velocity	8.00	8.62	7.94	6.60	7.71		8.00	8.62	7.94	6.60	8.30	7.21	
<b>Jackson, Shericka (JAM) (19)</b> time	12.6	24.5	37.3	52.35	52.35	6 / 8							
reaction time 0.168 interval		11.9	12.8	15.1		# of strides	12.60	11.90	12.80	15.05	24.50	27.85	3.35
velocity	7.94	8.40	7.81	6.64	7.64		7.94	8.40	7.81	6.64	8.16	7.18	

## 2019 Japanese National Championships (Fukuoka, JPN)

## FINAL

date 28-Jun-19

Yamanaka (2019) - research on athlete performance and technique- 2019 data book

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Aoyama, Seika (JPN) (1996)</b> time	7.08	13.01	19.15	25.46	31.98	38.85	46.02	53.68	53.68	4 / 1							
reaction time 0.228 interval		5.93	6.14	6.31	6.52	6.87	7.17	7.66		# of strides	13.01	12.45	13.39	14.83	25.46	28.22	2.76
velocity	7.06	8.43	8.14	7.92	7.67	7.28	6.97	6.53	7.45		209.5	7.69	8.03	7.47	6.74	7.86	7.09
<b>Takashima, Saki (JPN) (2002)</b> time	7.10	13.03	19.10	25.38	31.82	38.60	45.75	53.68	53.68	6 / 2							
reaction time 0.195 interval		5.93	6.07	6.28	6.44	6.78	7.15	7.93		# of strides	13.03	12.35	13.22	15.08	25.38	28.30	2.92
velocity	7.04	8.43	8.24	7.96	7.76	7.37	6.99	6.31	7.45		207.7	7.67	8.10	7.56	6.63	7.88	7.07
<b>Matsumoto, Nanako (JPN) (19)</b> time	6.93	12.70	18.67	24.94	31.52	38.56	45.95	53.70	53.70	5 / 3							
reaction time 0.193 interval		5.77	5.97	6.27	6.58	7.04	7.39	7.75		# of strides	12.70	12.24	13.62	15.14	24.94	28.76	3.82
velocity	7.22	8.67	8.38	7.97	7.60	7.10	6.77	6.45	7.45		205.7	7.87	8.17	7.34	6.61	8.02	6.95
<b>Takeishi, Konomi (JPN) (199)</b> time	6.85	12.71	18.92	25.48	32.22	39.28	46.56	54.19	54.19	8 / 4							
reaction time 0.160 interval		5.86	6.21	6.56	6.74	7.06	7.28	7.63		# of strides	12.71	12.77	13.80	14.91	25.48	28.71	3.23
velocity	7.30	8.53	8.05	7.62	7.42	7.08	6.87	6.55	7.38		7.87	7.83	7.25	6.71	7.85	6.97	
<b>Iwata, Yuna (JPN) (1997)</b> time	6.98	13.10	19.39	25.93	32.63	39.60	46.79	54.31	54.31	3 / 5							
reaction time 0.151 interval		6.12	6.29	6.54	6.70	6.97	7.19	7.52		# of strides	13.10	12.83	13.67	14.71	25.93	28.38	2.45
velocity	7.16	8.17	7.95	7.65	7.46	7.17	6.95	6.65	7.37		7.63	7.79	7.32	6.80	7.71	7.05	

## Heat 3

date 27-Jun-19

Yamanaka (2019) - race analysis of men and women 400m competition

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Aoyama, Seika (JPN) (1996)</b> time	6.98	12.79	18.89	25.16	31.63	38.53	45.82	53.71	53.71	5 / 1							
reaction time 0.235 interval		5.81	6.10	6.27	6.47	6.90	7.29	7.89		# of strides	12.79	12.37	13.37	15.18	25.16	28.55	3.39
velocity	7.16	8.61	8.20	7.97	7.73	7.25	6.86	6.34	7.45		7.82	8.08	7.48	6.59	7.95	7.01	
<b>Iwata, Yuna (JPN) (1997)</b> time	6.84	12.83	19.05	25.56	32.23	39.17	46.41	53.97	53.97	7 / 3							
reaction time 0.135 interval		5.99	6.22	6.51	6.67	6.94	7.24	7.56		# of strides	12.83	12.73	13.61	14.80	25.56	28.41	2.85
velocity	7.31	8.35	8.04	7.68	7.50	7.20	6.91	6.61	7.41		7.79	7.86	7.35	6.76	7.82	7.04	
<b>Kobayashi, Mayu (JPN) (199)</b> time	7.07	13.11	19.39	25.86	32.52	39.60	47.03	55.10	55.10	4 / 5							
reaction time 0.143 interval		6.04	6.28	6.47	6.66	7.08	7.43	8.07		# of strides	13.11	12.75	13.74	15.50	25.86	29.24	3.38
velocity	7.07	8.28	7.96	7.73	7.51	7.06	6.73	6.20	7.26		7.63	7.84	7.28	6.45	7.73	6.84	

## Heat 2

date 27-Jun-19

Yamanaka (2019) - race analysis of men and women 400m competition

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Takashima, Saki (JPN) (2002)</b> time	7.11	13.07	19.29	25.72	32.32	39.18	46.38	54.19	54.19	4 / 1							
reaction time 0.239 interval		5.96	6.22	6.43	6.60	6.86	7.20	7.81		# of strides	13.07	12.65	13.46	15.01	25.72	28.47	2.75
velocity	7.03	8.39	8.04	7.78	7.58	7.29	6.94	6.40	7.38		7.65	7.91	7.43	6.66	7.78	7.02	
<b>Inaoka, Mayu (JPN) (1996)</b> time	6.95	12.85	19.04	25.68	32.66	39.98	47.65	56.01	56.01	6 / 7							
reaction time 0.211 interval		5.90	6.19	6.64	6.98	7.32	7.67	8.36		# of strides	12.85	12.83	14.30	16.03	25.68	30.33	4.65
velocity	7.19	8.47	8.08	7.53	7.16	6.83	6.52	5.98	7.14		7.78	7.79	6.99	6.24	7.79	6.59	

## Heat 1

date 27-Jun-19

Yamanaka (2019) - race analysis of men and women 400m competition

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Matsumoto, Nanako (JPN) (19)</b> time	6.88	12.69	18.80	25.21	31.82	38.81	46.13	53.68	53.68	5 / 1							
reaction time 0.178 interval		5.81	6.11	6.41	6.61	6.99	7.32	7.55		# of strides	12.69	12.52	13.60	14.87	25.21	28.47	3.26
velocity	7.27	8.61	8.18	7.80	7.56	7.15	6.83	6.62	7.45		7.88	7.99	7.35	6.72	7.93	7.02	
<b>Takeishi, Konomi (JPN) (199)</b> time	6.81	12.75	19.09	25.58	32.20	39.07	46.30	53.97	53.97	6 / 2							
reaction time 0.158 interval		5.94	6.34	6.49	6.62	6.87	7.23	7.67		# of strides	12.75	12.83	13.49	14.90	25.58	28.39	2.81
velocity	7.34	8.42	7.89	7.70	7.55	7.28	6.92	6.52	7.41		7.84	7.79	7.41	6.71	7.82	7.04	
<b>Hirosawa, Mae (JPN) (1997)</b> time	7.10	13.27	19.69	26.30	33.03	40.04	47.19	54.80	54.80	4 / 3							
reaction time 0.191 interval		6.17	6.42	6.61	6.73	7.01	7.15	7.61		# of strides	13.27	13.03	13.74	14.76	26.30	28.50	2.20
velocity	7.04	8.10	7.79	7.56	7.43	7.13	6.99	6.57	7.30		7.54	7.67	7.28	6.78	7.60	7.02	

## 2019 Meeting International Mohammed VI d'Athlétisme (Rabat, MAR)

## FINAL

date 16-Jun-19

Omega Timing (2019) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Naser, Salwa Eid (BRN) (199)</b> time		12.2		23.7		36.3		50.13	50.13	4 / 1							
reaction time 0.165 interval				11.5		12.6		13.8		# of strides	12.20	11.50	12.60	13.83	23.70	26.43	2.73
velocity		8.20		8.70		7.94		7.23	7.98		193.2	8.20	8.70	7.94	7.23	8.44	7.57
<b>Seyni, Aminatou (NIG) (1996)</b> time		12.8		24.5		37.1		50.24	50.24	3 / 2							
reaction time 0.219 interval				11.7		12.6		13.1	NR	# of strides	12.80	11.70	12.60	13.14	24.50	25.74	1.24
velocity		7.81		8.55		7.94		7.61	7.96		195.0	7.81	8.55	7.94	7.61	8.16	7.77
<b>Botlogetswe, Christine (BOT)</b> time		12.3		23.9		36.5		50.48	50.48	6 / 3							
reaction time 0.184 interval				11.6		12.6		14.0	PB	# of strides	12.30	11.60	12.60	13.98	23.90	26.58	2.68
velocity		8.13		8.62		7.94		7.15	7.92		182.0	8.13	8.62	7.94	7.15	8.37	7.52
<b>Francis Phyllis (USA) (1992)</b> time		12.3		24.1		36.8		50.76	50.76	5 / 4							

reaction time	0.203	interval		11.8	12.7	14.0		# of strides	12.30	11.80	12.70	13.96	24.10	26.66	2.56
velocity	8.13			8.47	7.87	7.16	7.88		177.0	8.13	8.47	7.87	7.16	8.30	7.50
<b>Stepter, Jaide (USA) (1994)</b>	time	12.1	23.8	36.6	51.44	51.44		8 / 5							
reaction time	0.158	interval		11.7	12.8	14.8		# of strides	12.10	11.70	12.80	14.84	23.80	27.64	3.84
velocity	8.26			8.55	7.81	6.74	7.78		191.0	8.26	8.55	7.81	6.74	8.40	7.24
<b>de Witte, Lisanne (NED) (1995)</b>	time	12.7	24.6	37.5	51.53	51.53		7 / 6							
reaction time	0.174	interval		11.9	12.9	14.0		# of strides	12.70	11.90	12.90	14.03	24.60	26.93	2.33
velocity	7.87			8.40	7.75	7.13	7.76		194.0	7.87	8.40	7.75	7.13	8.13	7.43
<b>Ghafoor, Madiea (NED) (1999)</b>	time	12.3	24.2	37.6	52.92	52.92		1 / 8							
reaction time	0.205	interval		11.9	13.4	15.3		# of strides	12.30	11.90	13.40	15.32	24.20	28.72	4.52
velocity	8.13			8.40	7.46	6.53	7.56		199.5	8.13	8.40	7.46	6.53	8.26	6.96

**2019 Orlen Janusz Kosuciński Memorial (Chorzów, POL)****FINAL**

date 16-Jun-19

Vazel (2019) - statistical analysis and historical context of the new 400H world record

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Muhammad, Dalilah (USA) (2019)</b>				24.3				50.60	50.60	1 / 1							
reaction time								26.3	<b>PB</b>	# of strides		24.30		26.30	24.30	26.30	2.00
velocity				8.23				7.60	7.91			8.23		7.60	8.23	7.60	

**2019 Bislett Games (Oslo, NOR)****National FINAL**

date 13-Jun-19

Omega Timing (2019) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>van den Broeck, Naomi (BEL) (2019)</b>		12.7		25.3		39.4		54.48	54.48	5 / 1							
reaction time		0.134		12.6		14.1		15.1	<b>PB</b>	# of strides	12.70	12.60	14.10	15.08	25.30	29.18	3.88
velocity		7.87		7.94		7.09		6.63	7.34		7.87	7.94	7.09	6.63	7.91	6.85	
<b>Jensen, Sara Dorthea (NOR) (2019)</b>		13.6		26.1		39.4		54.83	54.83	7 / 2							
reaction time		0.194		12.5		13.3		15.4		# of strides	13.60	12.50	13.30	15.43	26.10	28.73	2.63
velocity		7.35		8.00		7.52		6.48	7.30		7.35	8.00	7.52	6.48	7.66	6.96	
<b>Ertzgaard, Kaitesi (NOR) (2019)</b>		13.2		25.7		39.7		55.60	55.60	6 / 3							
reaction time		0.178		12.5		14.0		15.9	<b>PB</b>	# of strides	13.20	12.50	14.00	15.90	25.70	29.90	4.20
velocity		7.58		8.00		7.14		6.29	7.19		7.58	8.00	7.14	6.29	7.78	6.69	
<b>Jensen, Christine Bjelland (NOR) (2019)</b>		13.3		26.1		40.3		55.70	55.70	4 / 4							
reaction time		0.161		12.8		14.2		15.4		# of strides	13.30	12.80	14.20	15.40	26.10	29.60	3.50
velocity		7.52		7.81		7.04		6.49	7.18		7.52	7.81	7.04	6.49	7.66	6.76	
<b>Tærn, Frida Røe (NOR) (2019)</b>		13.2		26.0		40.6		56.23	56.23	3 / 5							
reaction time		0.182		12.8		14.6		15.6		# of strides	13.20	12.80	14.60	15.63	26.00	30.23	4.23
velocity		7.58		7.81		6.85		6.40	7.11		7.58	7.81	6.85	6.40	7.69	6.62	
<b>Tveit, June Sæbbøe (NOR) (2019)</b>		13.5		26.9		41.1		56.56	56.56	2 / 6							
reaction time		0.182		13.4		14.2		15.5	<b>=PB</b>	# of strides	13.50	13.40	14.20	15.46	26.90	29.66	2.76
velocity		7.41		7.46		7.04		6.47	7.07		7.41	7.46	7.04	6.47	7.43	6.74	
<b>Amlie, Sigrid Kongssund (NOR) (2019)</b>		13.5		26.4		41.0		56.98	56.98	1 / 7							
reaction time		0.174		12.9		14.6		16.0	<b>PB</b>	# of strides	13.50	12.90	14.60	15.98	26.40	30.58	4.18
velocity		7.41		7.75		6.85		6.26	7.02		7.41	7.75	6.85	6.26	7.58	6.54	
<b>Nyhus, Mille Eide (NOR) (2019)</b>		13.2		26.5		41.2		57.22	57.22	8 / 8							
reaction time		0.208		13.3		14.7		16.0	<b>PB</b>	# of strides	13.20	13.30	14.70	16.02	26.50	30.72	4.22
velocity		7.58		7.52		6.80		6.24	6.99		7.58	7.52	6.80	6.24	7.55	6.51	

**2019 Golden Gala Pietro Mennea (Rome, ITA)****FINAL**

date 06-Jun-19

Omega Timing (2019) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Naser, Salwa Eid (BRN) (1991)</b>		12.6		24.4		36.7		50.26	50.26	5 / 1							
reaction time		0.178		11.8		12.3		13.6		# of strides	12.60	11.80	12.30	13.56	24.40	25.86	1.46
velocity		7.94		8.47		8.13		7.37	7.96		7.94	8.47	8.13	7.37	8.20	7.73	
<b>Jackson, Shericka (JAM) (1991)</b>		12.5		24.4		37.2		51.05	51.05	6 / 2							
reaction time		0.198		11.9		12.8		13.9		# of strides	12.50	11.90	12.80	13.85	24.40	26.65	2.25
velocity		8.00		8.40		7.81		7.22	7.84		8.00	8.40	7.81	7.22	8.20	7.50	
<b>McPherson, Stephenie Ann (2019)</b>		12.5		24.2		37.1		51.39	51.39	4 / 3							
reaction time		0.152		11.7		12.9		14.3		# of strides	12.50	11.70	12.90	14.29	24.20	27.19	2.99
velocity		8.00		8.55		7.75		7.00	7.78		8.00	8.55	7.75	7.00	8.26	7.36	
<b>Beard, Jessica (USA) (1989)</b>		12.4		24.3		37.3		51.55	51.55	8 / 4							
reaction time		0.237		11.9		13.0		14.3		# of strides	12.40	11.90	13.00	14.25	24.30	27.25	2.95
velocity		8.06		8.40		7.69		7.02	7.76		8.06	8.40	7.69	7.02	8.23	7.34	
<b>Święty-Ersetic, Justyna (POL) (2019)</b>		12.8		24.9		37.8		52.04	52.04	7 / 5							
reaction time		0.184		12.1		12.9		14.2		# of strides	12.80	12.10	12.90	14.24	24.90	27.14	2.24
velocity		7.81		8.26		7.75		7.02	7.69		7.81	8.26	7.75	7.02	8.03	7.37	
<b>Ellis, Kendall (USA) (1996)</b>		12.2		24.3		37.1		52.09	52.09	9 / 6							
reaction time		0.217		12.1		12.8		15.0		# of strides	12.20	12.10	12.80	14.99	24.30	27.79	3.49
velocity		8.20		8.26		7.81		6.67	7.68		8.20	8.26	7.81	6.67	8.23	7.20	
<b>de Witte, Lisanne (NED) (1995)</b>		13.0		25.3		38.4		52.17	52.17	3 / 7							
reaction time		0.190		12.3		13.1		13.8		# of strides	13.00	12.30	13.10	13.77	25.30	26.87	1.57
velocity		7.69		8.13		7.63		7.26	7.67		7.69	8.13	7.63	7.26	7.91	7.44	

<b>Okolo, Courtney (USA) (199)</b>	time	12.6	24.7	37.6	52.17	52.17	2 / 8										
	reaction time	0.222	interval	12.1	12.9	14.6	# of strides	12.60	12.10	12.90	14.57	24.70	27.47	2.77			
	velocity	7.94	8.26	7.75	6.86	7.67	198.7	7.94	8.26	7.75	6.86	8.10	7.28				
<b>Lukudo, Raphaela Boaheng</b>	time	12.9	25.1	38.3	52.98	52.98	1 / 9										
	reaction time	0.204	interval	12.2	13.2	14.7	# of strides	12.90	12.20	13.20	14.68	25.10	27.88	2.78			
	velocity	7.75	8.20	7.58	6.81	7.55	198.0	7.75	8.20	7.58	6.81	7.97	7.17				

**2019 Shimane High School Championships (Izumo, JPN)****FINAL**

date 24-May-19

Shimizu (2019) - shimane high school championships 2019 - biomechanics data analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Oshita, Airi (JPN)</b>	time	13.30	26.68	42.15	58.96	58.96	5 / 1											
	reaction time	interval	13.38	15.47	16.81	# of strides	13.30	13.38	15.47	16.81	26.68	32.28	5.60					
	velocity	7.52	7.47	6.46	5.95	6.78	7.52	7.47	6.46	5.95	7.50	6.20						
<b>Watanabe, Suzuka (JPN) (20)</b>	time	13.80	27.61	43.43	59.35	59.35	7 / 2											
	reaction time	interval	13.81	15.82	15.92	# of strides	13.80	13.81	15.82	15.92	27.61	31.74	4.13					
	velocity	7.25	7.24	6.32	6.28	6.74	7.25	7.24	6.32	6.28	7.24	6.30						
<b>Nagase, Nozomi (JPN)</b>	time	13.90	27.94	44.09	61.23	61.23	2 / 3											
	reaction time	interval	14.04	16.15	17.14	# of strides	13.90	14.04	16.15	17.14	27.94	33.29	5.35					
	velocity	7.19	7.12	6.19	5.83	6.53	7.19	7.12	6.19	5.83	7.16	6.01						
<b>Hirayabu, Mei (JPN)</b>	time	14.44	28.85	44.77	61.24	61.24	4 / 4											
	reaction time	interval	14.41	15.92	16.47	# of strides	14.44	14.41	15.92	16.47	28.85	32.39	3.54					
	velocity	6.93	6.94	6.28	6.07	6.53	6.93	6.94	6.28	6.07	6.93	6.17						
<b>Hihara, Honaka (JPN)</b>	time	14.87	30.08	45.98	61.84	61.84	6 / 5											
	reaction time	interval	15.21	15.90	15.86	# of strides	14.87	15.21	15.90	15.86	30.08	31.76	1.68					
	velocity	6.72	6.57	6.29	6.31	6.47	6.72	6.57	6.29	6.31	6.65	6.30						
<b>Ichise, Honaka (JPN)</b>	time	14.68	29.45	45.20	62.09	62.09	8 / 6											
	reaction time	interval	14.77	15.75	16.89	# of strides	14.68	14.77	15.75	16.89	29.45	32.64	3.19					
	velocity	6.81	6.77	6.35	5.92	6.44	6.81	6.77	6.35	5.92	6.79	6.13						
<b>Ishitobi, Miyu (JPN)</b>	time	15.58	30.50	46.14	63.10	63.10	9 / 7											
	reaction time	interval	14.92	15.64	16.96	# of strides	15.58	14.92	15.64	16.96	30.50	32.60	2.10					
	velocity	6.42	6.70	6.39	5.90	6.34	6.42	6.70	6.39	5.90	6.56	6.13						
<b>Natsuki, Okuni (JPN)</b>	time	15.16	30.28	47.19	64.96	64.96	3 / 8											
	reaction time	interval	15.12	16.91	17.77	# of strides	15.16	15.12	16.91	17.77	30.28	34.68	4.40					
	velocity	6.60	6.61	5.91	5.63	6.16	6.60	6.61	5.91	5.63	6.61	5.77						

**2019 Shanghai (Shanghai, CHN)****FINAL**

date 18-May-19

Omega Timing (2019) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Naser, Salwa Eid (BRN) (199)</b>	time	12.3	24.1	36.9	50.65	50.65	4 / 1											
	reaction time	0.182	interval	11.8	12.8	13.8	# of strides	12.30	11.80	12.80	13.75	24.10	26.55	2.45				
	velocity	8.13	8.47	7.81	7.27	7.90	187.5	8.13	8.47	7.81	7.27	8.30	7.53					
<b>McLaughlin, Sydney (USA)</b>	time	12.7	24.9	37.2	50.78	50.78	6 / 2											
	reaction time	0.147	interval	12.2	12.3	13.6	# of strides	12.70	12.20	12.30	13.58	24.90	25.88	0.98				
	velocity	7.87	8.20	8.13	7.36	7.88	184.5	7.87	8.20	8.13	7.36	8.03	7.73					
<b>Botlogetswe, Christine (BOT)</b>	time	12.7	24.6	37.6	51.29	51.29	9 / 3											
	reaction time	0.222	interval	11.9	13.0	13.7	# of strides	12.70	11.90	13.00	13.69	24.60	26.69	2.09				
	velocity	7.87	8.40	7.69	7.30	7.80	7.87	8.40	7.69	7.30	8.13	7.49						
<b>McPherson, Stephenie Ann</b>	time	12.5	24.5	37.3	51.39	51.39	7 / 4											
	reaction time	0.142	interval	12.0	12.8	14.1	# of strides	12.50	12.00	12.80	14.09	24.50	26.89	2.39				
	velocity	8.00	8.33	7.81	7.10	7.78	190.0	8.00	8.33	7.81	7.10	8.16	7.44					
<b>Beard, Jessica (USA) (1989)</b>	time	12.3	24.0	37.0	51.40	51.40	3 / 5											
	reaction time	0.236	interval	11.7	13.0	14.4	# of strides	12.30	11.70	13.00	14.40	24.00	27.40	3.40				
	velocity	8.13	8.55	7.69	6.94	7.78	193.2	8.13	8.55	7.69	6.94	8.33	7.30					
<b>de Witte, Lisanne (NED) (19)</b>	time	12.9	24.9	37.8	51.80	51.80	2 / 6											
	reaction time	0.180	interval	12.0	12.9	14.0	# of strides	12.90	12.00	12.90	14.00	24.90	26.90	2.00				
	velocity	7.75	8.33	7.75	7.14	7.72	193.2	7.75	8.33	7.75	7.14	8.03	7.43					
<b>Świąty-Ersetic, Justyna (POL)</b>	time	12.9	25.0	37.8	51.85	51.85	8 / 7											
	reaction time	0.172	interval	12.1	12.8	14.1	# of strides	12.90	12.10	12.80	14.05	25.00	26.85	1.85				
	velocity	7.75	8.26	7.81	7.12	7.71	7.75	8.26	7.81	7.12	8.00	7.45						
<b>Wimbley, Shakima (USA) (19)</b>	time	12.5	24.6	37.9	52.69	52.69	5 / 8											
	reaction time	0.130	interval	12.1	13.3	14.8	# of strides	12.50	12.10	13.30	14.79	24.60	28.09	3.49				
	velocity	8.00	8.26	7.52	6.76	7.59	8.00	8.26	7.52	6.76	8.13	7.12						
<b>Huang Guifen (CHN) (1997)</b>	time	12.8	25.5	39.3	54.17	54.17	1 / 9											
	reaction time	0.168	interval	12.7	13.8	14.9	# of strides	12.80	12.70	13.80	14.87	25.50	28.67	3.17				
	velocity	7.81	7.87	7.25	6.72	7.38	7.81	7.87	7.25	6.72	7.84	6.98						

**2019 Shizuoka International Athletics Meeting (Fukuroi, JPN)****A FINAL**

date 03-May-19

Kobayashi (2019) - research on athlete performance and technique- 2019 data book

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Aoyama, Seika (JPN) (1996)</b>	time	7.03	13.09	19.25	25.50	32.01	38.86	46.09	53.86	53.86	/ 2							



reaction time	interval	6.06	6.16	6.25	6.51	6.85	7.23	7.77		# of strides	13.09	12.41	13.36	15.00	25.50	28.36	2.86	
	velocity	7.11	8.25	8.12	8.00	7.68	7.30	6.92	6.44	7.43	7.64	8.06	7.49	6.67	7.84	7.05		
<b>Hirosawa, Mae (JPN) (1997)</b>	time	6.99	12.99	19.10	25.46	32.18	39.26	46.56	54.25	54.25	/ 3							
reaction time	interval	6.00	6.11	6.36	6.72	7.08	7.30	7.69		# of strides	12.99	12.47	13.80	14.99	25.46	28.79	3.33	
	velocity	7.15	8.33	8.18	7.86	7.44	7.06	6.85	6.50	7.37	7.70	8.02	7.25	6.67	7.86	6.95		
<b>Matsumoto, Nanako (JPN) (1997)</b>	time	7.03	13.00	19.12	25.45	32.20	39.28	46.68	54.45	54.45	/ 4							
reaction time	interval	5.97	6.12	6.33	6.75	7.08	7.40	7.77		# of strides	13.00	12.45	13.83	15.17	25.45	29.00	3.55	
	velocity	7.11	8.38	8.17	7.90	7.41	7.06	6.76	6.44	7.35	7.69	8.03	7.23	6.59	7.86	6.90		
<b>Iwata, Yuna (JPN) (1997)</b>	time	7.10	13.16	19.34	25.79	32.57	39.59	46.89	54.48	54.48	/ 5							
reaction time	interval	6.06	6.18	6.45	6.78	7.02	7.30	7.59		# of strides	13.16	12.63	13.80	14.89	25.79	28.69	2.90	
	velocity	7.04	8.25	8.09	7.75	7.37	7.12	6.85	6.59	7.34	7.60	7.92	7.25	6.72	7.75	6.97		
<b>Takeishi, Konomi (JPN) (1997)</b>	time	6.94	12.84	18.88	25.39	32.30	39.45	46.86	54.77	54.77	/ 7							
reaction time	interval	5.90	6.04	6.51	6.91	7.15	7.41	7.91		# of strides	12.84	12.55	14.06	15.32	25.39	29.38	3.99	
	velocity	7.20	8.47	8.28	7.68	7.24	6.99	6.75	6.32	7.30	7.79	7.97	7.11	6.53	7.88	6.81		
<b>Inaoka, Mayu (JPN) (1996)</b>	time	7.02	12.88	18.92	25.31	32.06	39.24	46.84	55.01	55.01	/ 8							
reaction time	interval	5.86	6.04	6.39	6.75	7.18	7.60	8.17		# of strides	12.88	12.43	13.93	15.77	25.31	29.70	4.39	
	velocity	7.12	8.53	8.28	7.82	7.41	6.96	6.58	6.12	7.27	7.76	8.05	7.18	6.34	7.90	6.73		
<b>B FINAL</b>	date	03-May-19	<i>Kobayashi (2019) - research on athlete performance and technique- 2019 data book</i>															
		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Kobayashi, Mayu (JPN) (1991)</b>	time	7.06	13.16	19.31	25.72	32.48	39.53	47.04	55.00	55.00	/ 1							
reaction time	interval	6.10	6.15	6.41	6.76	7.05	7.51	7.96		# of strides	13.16	12.56	13.81	15.47	25.72	29.28	3.56	
	velocity	7.08	8.20	8.13	7.80	7.40	7.09	6.66	6.28	7.27	7.60	7.96	7.24	6.46	7.78	6.83		
<b>Idoabigeiru, Fuka (JPN) (2001)</b>	time	6.83	12.80	19.22	26.43	34.19	42.16	50.51	59.19	59.19	/ 6							
reaction time	interval	5.97	6.42	7.21	7.76	7.97	8.35	8.68		# of strides	12.80	13.63	15.73	17.03	26.43	32.76	6.33	
	velocity	7.32	8.38	7.79	6.93	6.44	6.27	5.99	5.76	6.76	7.81	7.34	6.36	5.87	7.57	6.11		
<b>2019 Asian Athletics Championships (Doha, QAT)</b>																		
<b>FINAL</b>	date	21-Apr-19	<i>Yamanaka (2019) - race analysis of men and women 400m competition</i>															
		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Naser, Salwa Eid (BRN) (1991)</b>	time	6.64	12.15	18.00	24.26	30.67	37.24	44.08	51.34	51.34	4 / 1							
reaction time	0.187 interval	5.51	5.85	6.26	6.41	6.57	6.84	7.26		# of strides	12.15	12.11	12.98	14.10	24.26	27.08	2.82	
	velocity	7.53	9.07	8.55	7.99	7.80	7.61	7.31	6.89	7.79	187.0	8.23	8.26	7.70	7.09	8.24	7.39	
<b>Mikhina, Elina (KAZ) (1994)</b>	time	7.05	12.83	18.85	25.33	32.04	38.93	45.99	53.19	53.19	3 / 2							
reaction time	0.244 interval	5.78	6.02	6.48	6.71	6.89	7.06	7.20		# of strides	12.83	12.50	13.60	14.26	25.33	27.86	2.53	
	velocity	7.09	8.65	8.31	7.72	7.45	7.26	7.08	6.94	7.52	7.79	8.00	7.35	7.01	7.90	7.18		
<b>Poovamma, Machettira Raju (2001)</b>	time	6.94	12.69	18.79	25.20	31.77	38.56	45.60	53.21	53.21	5 / 3							
reaction time	0.202 interval	5.75	6.10	6.41	6.57	6.79	7.04	7.61		# of strides	12.69	12.51	13.36	14.65	25.20	28.01	2.81	
	velocity	7.20	8.70	8.20	7.80	7.61	7.36	7.10	6.57	7.52	187.7	7.88	7.99	7.49	6.83	7.94	7.14	
<b>Hirosawa, Mae (JPN) (1997)</b>	time	6.85	12.72	18.82	25.23	31.87	38.75	45.89	53.54	53.54	8 / 4							
reaction time	0.163 interval	5.87	6.10	6.41	6.64	6.88	7.14	7.65		# of strides	12.72	12.51	13.52	14.79	25.23	28.31	3.08	
	velocity	7.30	8.52	8.20	7.80	7.53	7.27	7.00	6.54	7.47	199.5	7.86	7.99	7.40	6.76	7.93	7.06	
<b>2018 Japanese National Junior (U20) Championships (Nagano, JPN)</b>																		
<b>FINAL</b>	date	19-Oct-18	<i>Ryutaro (2018) - research on athlete performance and technique- 2018 data book</i>															
		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Shiomi, Ayano (JPN) (1999)</b>	time	7.19	13.24	19.40	25.81	32.49	39.45	46.61	54.32	54.32	3 / 1							
reaction time	interval	6.05	6.16	6.41	6.68	6.96	7.16	7.71	<b>PB</b>	# of strides	13.24	12.57	13.64	14.87	25.81	28.51	2.70	
	velocity	6.95	8.26	8.12	7.80	7.49	7.18	6.98	6.49	7.36	7.55	7.96	7.33	6.72	7.75	7.02		
<b>Onishi, Manae (JPN) (2000)</b>	time	7.32	13.30	19.45	25.93	32.70	39.74	47.10	55.14	55.14	5 / 2							
reaction time	0.272 interval	5.98	6.15	6.48	6.77	7.04	7.36	8.04		# of strides	13.30	12.63	13.81	15.40	25.93	29.21	3.28	
	velocity	6.83	8.36	8.13	7.72	7.39	7.10	6.79	6.22	7.25	7.52	7.92	7.24	6.49	7.71	6.85		
<b>Oshima, Airi (JPN) (2000)</b>	time	7.31	13.35	19.67	26.31	33.12	40.12	47.39	55.33	55.33	2 / 3							
reaction time	0.178 interval	6.04	6.32	6.64	6.81	7.00	7.27	7.94		# of strides	13.35	12.96	13.81	15.21	26.31	29.02	2.71	
	velocity	6.84	8.28	7.91	7.53	7.34	7.14	6.88	6.30	7.23	7.49	7.72	7.24	6.57	7.60	6.89		
<b>Kuwahara, Ayako (JPN) (2000)</b>	time	7.13	13.06	19.14	25.57	32.42	39.62	47.19	55.60	55.60	4 / 4							
reaction time	0.199 interval	5.93	6.08	6.43	6.85	7.20	7.57	8.41		# of strides	13.06	12.51	14.05	15.98	25.57	30.03	4.46	
	velocity	7.01	8.43	8.22	7.78	7.30	6.94	6.61	5.95	7.19	7.66	7.99	7.12	6.26	7.82	6.66		
<b>Yoshida, Kasumi (JPN) (1999)</b>	time	7.08	13.09	19.44	26.10	33.06	40.35	47.87	55.94	55.94	6 / 5							
reaction time	0.437 interval	6.01	6.35	6.66	6.96	7.29	7.52	8.07		# of strides	13.09	13.01	14.25	15.59	26.10	29.84	3.74	
	velocity	7.06	8.32	7.87	7.51	7.18	6.86	6.65	6.20	7.15	7.64	7.69	7.02	6.41	7.66	6.70		
<b>Takashima, Natsumi (JPN) (2000)</b>	time	7.40	13.58	20.07	26.87	33.98	41.22	48.58	56.28	56.28	8 / 6							
reaction time	0.239 interval	6.18	6.49	6.80	7.11	7.24	7.36	7.70		# of strides	13.58	13.29	14.35	15.06	26.87	29.41	2.54	
	velocity	6.76	8.09	7.70	7.35	7.03	6.91	6.79	6.49	7.11	7.36	7.52	6.97	6.64	7.44	6.80		
<b>Gono, Shiina (JPN) (1999)</b>	time	7.28	13.60	20.10	26.88	33.87	41.14	48.60	56.59	56.59	1 / 7							
reaction time	0.198 interval	6.32	6.50	6.78	6.99	7.27	7.46	7.99		# of strides	13.60	13.28	14.26	15.45	26.88	29.71	2.83	
	velocity	6.87	7.91	7.69	7.37	7.15	6.88	6.70	6.26	7.07	7.35	7.53	7.01	6.47	7.44	6.73		
<b>Okumura, Yuri (JPN) (2000)</b>	time	7.20	13.08	19.39	26.18	33.24	40.66	48.35	56.59	56.59	7 / 8							
reaction time	0.185 interval	5.88	6.31	6.79	7.06	7.42	7.69	8.24		# of strides	13.08	13.10	14.48	15.93	26.18	30.41	4.23	
	velocity	6.94	8.50	7.92	7.36	7.08	6.74	6.50	6.07	7.07	7.65	7.63	6.91	6.28	7.64	6.58		



<b>Aoki, Sayaka (JPN) (1986)</b>	time	7.03	13.13	19.45	26.18	33.16	40.36	47.67	55.06	55.06	7 / 2							
	reaction time 0.158 interval		6.10	6.32	6.73	6.98	7.20	7.31	7.39		# of strides	13.13	13.05	14.18	14.70	26.18	28.88	2.70
	velocity	7.11	8.20	7.91	7.43	7.16	6.94	6.84	6.77	7.26		7.62	7.66	7.05	6.80	7.64	6.93	
<b>Shintaku, Asami (JPN) (1994)</b>	time	7.24	13.36	19.55	26.15	32.94	39.93	47.30	55.15	55.15	5 / 3							
	reaction time 0.153 interval		6.12	6.19	6.60	6.79	6.99	7.37	7.85		# of strides	13.36	12.79	13.78	15.22	26.15	29.00	2.85
	velocity	6.91	8.17	8.08	7.58	7.36	7.15	6.78	6.37	7.25		7.49	7.82	7.26	6.57	7.65	6.90	
<b>Kashiyama, Kaede (JPN) (1991)</b>	time	7.08	13.05	19.15	25.66	32.45	39.56	47.01	55.19	55.19	6 / 4							
	reaction time interval		5.97	6.10	6.51	6.79	7.11	7.45	8.18		# of strides	13.05	12.61	13.90	15.63	25.66	29.53	3.87
	velocity	7.06	8.38	8.20	7.68	7.36	7.03	6.71	6.11	7.25		7.66	7.93	7.19	6.40	7.79	6.77	
<b>Fujinuma, Akane (JPN) (1996)</b>	time	7.23	13.32	19.59	26.29	33.24	40.41	47.78	55.63	55.63	8 / 5							
	reaction time 0.132 interval		6.09	6.27	6.70	6.95	7.17	7.37	7.85	<b>PB</b>	# of strides	13.32	12.97	14.12	15.22	26.29	29.34	3.05
	velocity	6.92	8.21	7.97	7.46	7.19	6.97	6.78	6.37	7.19		7.51	7.71	7.08	6.57	7.61	6.82	

**2018 Asian Games (Jakarta, INA)****FINAL**

date 26-Aug-18

Yamanaka (2018) - Race analysis of men and women 400m at 2018 competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Naser, Salwa Eid (BRN) (1991)</b>	time	6.69	12.30	18.10	24.14	30.40	36.77	43.29	50.09	50.09	5 / 1							
	reaction time 0.156 interval		5.61	5.80	6.04	6.26	6.37	6.52	6.80	<b>CR</b>	# of strides	12.30	11.84	12.63	13.32	24.14	25.95	1.81
	velocity	7.47	8.91	8.62	8.28	7.99	7.85	7.67	7.35	7.99		187.5	8.13	8.45	7.92	7.51	8.29	7.71
<b>Das, Hima (IND) (2000)</b>	time	6.82	12.58	18.49	24.52	30.84	37.39	43.99	50.79	50.79	3 / 2							
	reaction time 0.161 interval		5.76	5.91	6.03	6.32	6.55	6.60	6.80	<b>NJR PB</b>	# of strides	12.58	11.94	12.87	13.40	24.52	26.27	1.75
	velocity	7.33	8.68	8.46	8.29	7.91	7.63	7.58	7.35	7.88		197.0	7.95	8.38	7.77	7.46	8.16	7.61
<b>Mikhina, Elina (KAZ) (1994)</b>	time	7.07	12.94	19.09	25.48	32.03	38.70	45.51	52.63	52.63	1 / 3							
	reaction time 0.206 interval		5.87	6.15	6.39	6.55	6.67	6.81	7.12		# of strides	12.94	12.54	13.22	13.93	25.48	27.15	1.67
	velocity	7.07	8.52	8.13	7.82	7.63	7.50	7.34	7.02	7.60		189.0	7.73	7.97	7.56	7.18	7.85	7.37
<b>Sheoran, Nirmala (IND) (1991)</b>	time	7.06	12.93	18.95	25.15	31.60	38.33	45.37	52.96	52.96	4 / 4							
	reaction time 0.277 interval		5.87	6.02	6.20	6.45	6.73	7.04	7.59		# of strides	12.93	12.22	13.18	14.63	25.15	27.81	2.66
	velocity	7.08	8.52	8.31	8.06	7.75	7.43	7.10	6.59	7.55		183.0	7.73	8.18	7.59	6.84	7.95	7.19
<b>Huang Guifen (CHN) (1997)</b>	time	6.77	12.75	18.86	25.36	32.03	38.98	46.26	53.89	53.89	8 / 5							
	reaction time 0.201 interval		5.98	6.11	6.50	6.67	6.95	7.28	7.63		# of strides	12.75	12.61	13.62	14.91	25.36	28.53	3.17
	velocity	7.39	8.36	8.18	7.69	7.50	7.19	6.87	6.55	7.42		7.84	7.93	7.34	6.71	7.89	7.01	
<b>Tong Zenghuan (CHN) (1991)</b>	time	7.26	13.37	19.61	26.04	32.66	39.44	46.44	53.95	53.95	7 / 6							
	reaction time 0.296 interval		6.11	6.24	6.43	6.62	6.78	7.00	7.51		# of strides	13.37	12.67	13.40	14.51	26.04	27.91	1.87
	velocity	6.89	8.18	8.01	7.78	7.55	7.37	7.14	6.66	7.41		7.48	7.89	7.46	6.89	7.68	7.17	
<b>Jassim, Iman Isa (BRN) (1997)</b>	time	6.77	12.73	18.85	25.35	32.00	38.89	46.22	54.19	54.19	6 / 7							
	reaction time 0.158 interval		5.96	6.12	6.50	6.65	6.89	7.33	7.97		# of strides	12.73	12.62	13.54	15.30	25.35	28.84	3.49
	velocity	7.39	8.39	8.17	7.69	7.52	7.26	6.82	6.27	7.38		7.86	7.92	7.39	6.54	7.89	6.93	
<b>Nguyen Thi Hang (VIE) (1991)</b>	time	6.89	12.77	18.94	25.33	32.06	39.09	46.47	54.30	54.30	2 / 8							
	reaction time 0.175 interval		5.88	6.17	6.39	6.73	7.03	7.38	7.83	<b>PB</b>	# of strides	12.77	12.56	13.76	15.21	25.33	28.97	3.64
	velocity	7.26	8.50	8.10	7.82	7.43	7.11	6.78	6.39	7.37		7.83	7.96	7.27	6.57	7.90	6.90	

**2018 African Championships (Asaba Asaba, NGR)****FINAL**

date 03-Aug-18

Vazell (2018.08.03) - <https://twitter.com/pjvazell>

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Semenya, Caster (RSA) (1991)</b>	time				24.3		36.7		49.96	49.96	4 / 1							
	reaction time interval						12.40		13.26	<b>NR</b>	# of strides		24.30	12.40	13.26	24.30	25.66	1.36
	velocity				8.23		8.06		7.54	8.01		194.0	4.12	8.06	7.54	8.23	7.79	

**2018 Japanese National High School Championships (Nagoya, JPN)****FINAL**

date 02-Aug-18

Kota (2018) - 71st high school championships: JAF scientific committee - biomechanics data collection

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Takashima, Saki (JPN) (2002)</b>	time	7.09	13.26	19.52	25.91	32.44	39.18	46.18	53.78	53.78	8 / 1							
	reaction time interval		6.17	6.26	6.39	6.53	6.74	7.00	7.60		# of strides	13.26	12.65	13.27	14.60	25.91	27.87	1.96
	velocity	7.05	8.10	7.99	7.82	7.66	7.42	7.14	6.58	7.44		7.54	7.91	7.54	6.85	7.72	7.18	
<b>Yoshioka, Rina (JPN) (2001)</b>	time	7.11	13.30	19.84	26.35	32.93	39.83	47.09	54.99	54.99	4 / 2							
	reaction time interval		6.19	6.54	6.51	6.58	6.90	7.26	7.90		# of strides	13.30	13.05	13.48	15.16	26.35	28.64	2.29
	velocity	7.03	8.08	7.65	7.68	7.60	7.25	6.89	6.33	7.27		7.52	7.66	7.42	6.60	7.59	6.98	
<b>Irie, Akiho (JPN) (2001)</b>	time	7.16	13.31	19.69	26.24	33.02	40.08	47.45	55.23	55.23	7 / 3							
	reaction time interval		6.15	6.38	6.55	6.78	7.06	7.37	7.78		# of strides	13.31	12.93	13.84	15.15	26.24	28.99	2.75
	velocity	6.98	8.13	7.84	7.63	7.37	7.08	6.78	6.43	7.24		7.51	7.73	7.23	6.60	7.62	6.90	
<b>Onishi, Aonori (JPN)</b>	time	7.09	13.02	19.20	25.59	32.15	39.17	46.74	55.24	55.24	6 / 4							
	reaction time interval		5.93	6.18	6.39	6.56	7.02	7.57	8.50		# of strides	13.02	12.57	13.58	16.07	25.59	29.65	4.06
	velocity	7.05	8.43	8.09	7.82	7.62	7.12	6.61	5.88	7.24		7.68	7.96	7.36	6.22	7.82	6.75	
<b>Takashima, Natsumi (JPN) (2001)</b>	time	7.29	13.54	19.90	26.54	33.49	40.75	48.18	55.95	55.95	9 / 5							
	reaction time interval		6.25	6.36	6.64	6.95	7.26	7.43	7.77		# of strides	13.54	13.00	14.21	15.20	26.54	29.41	2.87
	velocity	6.86	8.00	7.86	7.53	7.19	6.89	6.73	6.44	7.15		7.39	7.69	7.04	6.58	7.54	6.80	
<b>Sudo, Mio (JPN) (2002)</b>	time	7.21	13.40	19.87	26.49	33.39	40.65	48.18	55.98	55.98	5 / 6							
	reaction time interval		6.19	6.47	6.62	6.90	7.26	7.53	7.80		# of strides	13.40	13.09	14.16	15.33	26.49	29.49	3.00
	velocity	6.93	8.08	7.73	7.55	7.25	6.89	6.64	6.41	7.15		7.46	7.64	7.06	6.52	7.55	6.78	
<b>Oshima, Airi (JPN) (2000)</b>	time	7.55	13.91	20.55	27.37	34.35	41.45	48.64	56.08	56.08	2 / 7							
	reaction time interval		6.36	6.64	6.82	6.98	7.10	7.19	7.44		# of strides	13.91	13.46	14.08	14.63	27.37	28.71	1.34
	velocity																	



velocity	6.62	7.86	7.53	7.33	7.16	7.04	6.95	6.72	7.13		7.19	7.43	7.10	6.84	7.31	6.97	
<b>Tsugawa, Rui (JPN) (2001)</b> time	7.35	13.60	20.19	27.02	33.93	41.17	48.64	56.75	56.75	3 / 8							
reaction time	interval	6.25	6.59	6.83	6.91	7.24	7.47	8.11		# of strides	13.60	13.42	14.15	15.58	27.02	29.73	2.71
velocity	6.80	8.00	7.59	7.32	7.24	6.91	6.69	6.17	7.05		7.35	7.45	7.07	6.42	7.40	6.73	

**2018 Müller Anniversary Games (London, GBR)****FINAL**

date 22-Jul-18

Omega Timing (2018) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>McPherson, Stephanie Ann</b> time	12.3		24.0		36.7		50.31		50.31	5 / 1							
reaction time	0.133	interval	11.7		12.7		13.6			# of strides	12.30	11.70	12.70	13.61	24.00	26.31	2.31
velocity	8.13		8.55		7.87		7.35		7.95	184.5	8.13	8.55	7.87	7.35	8.33	7.60	
<b>Le-Roy, Anastasia (JAM) (1919)</b> time	12.3		24.0		36.8		50.85		50.85	4 / 2							
reaction time	0.154	interval	11.7		12.8		14.1			# of strides	12.30	11.70	12.80	14.05	24.00	26.85	2.85
velocity	8.13		8.55		7.81		7.12		7.87	197.0	8.13	8.55	7.81	7.12	8.33	7.45	
<b>Okolo, Courtney (USA) (1999)</b> time	12.7		24.8		37.4		50.93		50.93	6 / 3							
reaction time	0.223	interval	12.1		12.6		13.5			# of strides	12.70	12.10	12.60	13.53	24.80	26.13	1.33
velocity	7.87		8.26		7.94		7.39		7.85	192.0	7.87	8.26	7.94	7.39	8.06	7.65	
<b>de Witte, Lianne (NED) (1995)</b> time	13.0		24.9		37.5		51.08		51.08	2 / 4							
reaction time	0.157	interval	11.9		12.6		13.6			# of strides	13.00	11.90	12.60	13.58	24.90	26.18	1.28
velocity	7.69		8.40		7.94		7.36		7.83		7.69	8.40	7.94	7.36	8.03	7.64	
<b>Onuora, Anyika (GBR) (1984)</b> time	13.0		25.2		37.4		51.13		51.13	7 / 5							
reaction time	0.167	interval	12.2		12.2		13.7			# of strides	13.00	12.20	12.20	13.73	25.20	25.93	0.73
velocity	7.69		8.20		8.20		7.28		7.82	193.5	7.69	8.20	8.20	7.28	7.94	7.71	
<b>Allcock, Amy (GBR) (1993)</b> time	12.8		24.9		37.6		51.36		51.36	8 / 6							
reaction time	0.157	interval	12.1		12.7		13.8		<b>PB</b>	# of strides	12.80	12.10	12.70	13.76	24.90	26.46	1.56
velocity	7.81		8.26		7.87		7.27		7.79	194.7	7.81	8.26	7.87	7.27	8.03	7.56	
<b>Clark, Zoey (GBR) (1994)</b> time	12.7		24.8		37.6		51.36		51.36	9 / 7							
reaction time	0.142	interval	12.1		12.8		13.8		<b>PB</b>	# of strides	12.70	12.10	12.80	13.76	24.80	26.56	1.76
velocity	7.87		8.26		7.81		7.27		7.79		7.87	8.26	7.81	7.27	8.06	7.53	
<b>Nielsen, Lavai (GBR) (1996)</b> time	12.6		24.6		37.2		51.70		51.70	3 / 8							
reaction time	0.154	interval	12.0		12.6		14.5		<b>PB</b>	# of strides	12.60	12.00	12.60	14.50	24.60	27.10	2.50
velocity	7.94		8.33		7.94		6.90		7.74		7.94	8.33	7.94	6.90	8.13	7.38	
<b>luel, Amalie (NOR) (1994)</b> time	13.2		25.5		38.3		51.99		51.99	1 / 9							
reaction time	0.183	interval	12.3		12.8		13.7			# of strides	13.20	12.30	12.80	13.69	25.50	26.49	0.99
velocity	7.58		8.13		7.81		7.30		7.69		7.58	8.13	7.81	7.30	7.84	7.55	

**2018 Herculis Meeting International d'Athlétisme (Monaco, MON)****FINAL**

date 20-Jul-18

Vazel (2018.07.20) - <https://twitter.com/pjvazel>

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Miller-Uibo, Shaunae (BAH)</b> time				23.5		36.1		48.97	48.97	6 / 1							
reaction time						12.60		12.87	<b>NR</b>	# of strides		23.50	12.60	12.87	23.50	25.47	1.97
velocity				8.51		7.94		7.77	8.17	177.0		4.26	7.94	7.77	8.51	7.85	
<b>Naser, Salwa Eid (BRN) (1991)</b> time				23.7		36.2		49.08	49.08	5 / 2							
reaction time						12.50		12.88	<b>NR</b>	# of strides		23.70	12.50	12.88	23.70	25.38	1.68
velocity				8.44		8.00		7.76	8.15	184.0		4.22	8.00	7.76	8.44	7.88	

**2018 IAAF World Junior Championships (Tampere, FIN)****FINAL**

date 12-Jul-18

Koyama (2018) - research on athlete performance and technique- 2018 data book

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
<b>Das, Hima (IND) (2000)</b> time	6.84	12.69	18.69	25.00	31.51	38.03	44.59	51.47	51.47	4 / 1								
reaction time	0.180	interval	5.85	6.00	6.31	6.51	6.52	6.56	6.88	# of strides	12.69	12.31	13.03	13.44	25.00	26.47	1.47	
velocity	7.31	8.55	8.33	7.92	7.68	7.67	7.62	7.27	7.77	197.5	7.88	8.12	7.67	7.44	8.00	7.56		
<b>Miklos, Andrea (ROU) (1999)</b> time	6.93	12.70	18.65	24.86	31.31	37.99	44.81	52.07	52.07	3 / 2								
reaction time	0.198	interval	5.77	5.95	6.21	6.45	6.68	6.82	7.26	<b>PB</b>	# of strides	12.70	12.16	13.13	14.08	24.86	27.21	2.35
velocity	7.22	8.67	8.40	8.05	7.75	7.49	7.33	6.89	7.68	195.0	7.87	8.22	7.62	7.10	8.05	7.35		
<b>Manson, Taylor (USA) (1999)</b> time	6.78	12.41	18.28	24.57	31.02	37.63	44.63	52.28	52.28	6 / 3								
reaction time	0.150	interval	5.63	5.87	6.29	6.45	6.61	7.00	7.65	# of strides	12.41	12.16	13.06	14.65	24.57	27.71	3.14	
velocity	7.37	8.88	8.52	7.95	7.75	7.56	7.14	6.54	7.65	190.0	8.06	8.22	7.66	6.83	8.14	7.22		
<b>Connolly, Ella (AUS) (2000)</b> time	6.63	12.37	18.33	24.62	31.15	37.89	45.01	52.82	52.82	5 / 4								
reaction time	0.186	interval	5.74	5.96	6.29	6.53	6.74	7.12	7.81	# of strides	12.37	12.25	13.27	14.93	24.62	28.20	3.58	
velocity	7.54	8.71	8.39	7.95	7.66	7.42	7.02	6.40	7.57	192.0	8.08	8.16	7.54	6.70	8.12	7.09		
<b>Moraa, Mary (KEN) (2000)</b> time	7.05	12.85	18.89	25.29	31.84	38.53	45.46	52.94	52.94	7 / 5								
reaction time	0.286	interval	5.80	6.04	6.40	6.55	6.69	6.93	7.48	# of strides	12.85	12.44	13.24	14.41	25.29	27.65	2.36	
velocity	7.09	8.62	8.28	7.81	7.63	7.47	7.22	6.68	7.56	202.0	7.78	8.04	7.55	6.94	7.91	7.23		
<b>Williams, Stacey-Ann (JAM)</b> time	6.94	12.76	18.90	25.31	31.86	38.53	45.47	53.23	53.23	1 / 6								
reaction time	0.163	interval	5.82	6.14	6.41	6.55	6.67	6.94	7.76	# of strides	12.76	12.55	13.22	14.70	25.31	27.92	2.61	
velocity	7.20	8.59	8.14	7.80	7.63	7.50	7.20	6.44	7.51	196.2	7.84	7.97	7.56	6.80	7.90	7.16		
<b>Vandi, Elisabetta (ITA) (2000)</b> time	6.93	13.00	19.23	25.73	32.32	39.07	45.96	53.40	53.40	2 / 7								
reaction time	0.181	interval	6.07	6.23	6.50	6.59	6.75	6.89	7.44	# of strides	13.00	12.73	13.34	14.33	25.73	27.67	1.94	
velocity	7.22	8.24	8.03	7.69	7.59	7.41	7.26	6.72	7.49	190.2	7.69	7.86	7.50	6.98	7.77	7.23		

<b>Best, Ashlan (CAN) (1999)</b>	time	6.82	12.66	18.60	24.94	31.61	38.61	45.94	53.59	53.59	8 / 8							
	reaction time	0.148	interval	5.84	5.94	6.34	6.67	7.00	7.33	7.65	# of strides	12.66	12.28	13.67	14.98	24.94	28.65	3.71
	velocity	7.33	8.56	8.42	7.89	7.50	7.14	6.82	6.54	7.46	197.5	7.90	8.14	7.32	6.68	8.02	6.98	

**2018 Meeting de Paris (Paris, FRA)****FINAL**

date 30-Jun-18

Omega Timing (2018) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Naser, Salwa Eid (BRN) (1991)</b>	time		12.5		24.3		36.7		49.55	49.55	5 / 1							
	reaction time	0.159	interval		11.8		12.4		12.9	AR	# of strides	12.50	11.80	12.40	12.85	24.30	25.25	0.95
	velocity	8.00	8.47	8.06	7.78	8.07	183.7	8.00	8.47	8.06	7.78	8.23	7.92					
<b>Beard, Jessica (USA) (1989)</b>	time		12.3		24.0		36.9		50.39	50.39	3 / 2							
	reaction time	0.216	interval		11.7		12.9		13.5	7.94	# of strides	12.30	11.70	12.90	13.49	24.00	26.39	2.39
	velocity	8.13	8.55	7.75	7.41	7.94	186.7	8.13	8.55	7.75	7.41	8.33	7.58					
<b>Francis Phyllis (USA) (1992)</b>	time		12.3		24.2		36.9		50.50	50.50	6 / 3							
	reaction time	0.198	interval		11.9		12.7		13.6	7.92	# of strides	12.30	11.90	12.70	13.60	24.20	26.30	2.10
	velocity	8.13	8.40	7.87	7.35	7.92	178.2	8.13	8.40	7.87	7.35	8.26	7.60					
<b>Wimbley, Shakima (USA) (19)</b>	time		12.3		24.1		36.9		50.81	50.81	4 / 4							
	reaction time	0.142	interval		11.8		12.8		13.9	7.87	# of strides	12.30	11.80	12.80	13.91	24.10	26.71	2.61
	velocity	8.13	8.47	7.81	7.19	7.87	183.7	8.13	8.47	7.81	7.19	8.30	7.49					
<b>McPherson, Stephenie Ann (1)</b>	time		12.4		24.4		37.1		50.85	50.85	2 / 5							
	reaction time	0.139	interval		12.0		12.7		13.8	7.87	# of strides	12.40	12.00	12.70	13.75	24.40	26.45	2.05
	velocity	8.06	8.33	7.87	7.27	7.87	186.7	8.06	8.33	7.87	7.27	8.20	7.56					
<b>Okolo, Courtney (USA) (199)</b>	time		12.7		24.7		37.4		51.15	51.15	8 / 6							
	reaction time	0.246	interval		12.0		12.7		13.8	7.82	# of strides	12.70	12.00	12.70	13.75	24.70	26.45	1.75
	velocity	7.87	8.33	7.87	7.27	7.82	193.0	7.87	8.33	7.87	7.27	8.10	7.56					
<b>Guei, Floria (FRA) (1990)</b>	time		12.5		24.4		37.2		51.71	51.71	7 / 7							
	reaction time	0.184	interval		11.9		12.8		14.5	7.74	# of strides	12.50	11.90	12.80	14.51	24.40	27.31	2.91
	velocity	8.00	8.40	7.81	6.89	7.74	195.0	8.00	8.40	7.81	6.89	8.20	7.32					
<b>Le-Roy, Anastasia (JAM) (19)</b>	time		12.7		25.1		38.2		52.44	52.44	1 / 8							
	reaction time	0.173	interval		12.4		13.1		14.2	7.63	# of strides	12.70	12.40	13.10	14.24	25.10	27.34	2.24
	velocity	7.87	8.06	7.63	7.02	7.63	200.0	7.87	8.06	7.63	7.02	7.97	7.32					

**2018 Japanese National Championships (Yamaguchi, JPN)****FINAL**

date 23-Jun-18

Yamanaka (2018) - Race analysis of men and women 400m at 2018 competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
<b>Kawada, Ayaka (JPN) (1999)</b>	time	6.91	12.91	19.12	25.67	32.39	39.32	46.35	53.75	53.75	5 / 1								
	reaction time	0.176	interval	6.00	6.21	6.55	6.72	6.93	7.03	7.40	# of strides	12.91	12.76	13.65	14.43	25.67	28.08	2.41	
	velocity	7.24	8.33	8.05	7.63	7.44	7.22	7.11	6.76	7.44	211.5	7.75	7.84	7.33	6.93	7.79	7.12		
<b>Hirosawa, Mae (JPN) (1997)</b>	time	6.80	12.83	19.09	25.56	32.32	39.27	46.37	53.95	53.95	8 / 2								
	reaction time	0.149	interval	6.03	6.26	6.47	6.76	6.95	7.10	7.58	PB	# of strides	12.83	12.73	13.71	14.68	25.56	28.39	2.83
	velocity	7.35	8.29	7.99	7.73	7.40	7.19	7.04	6.60	7.41	199.0	7.79	7.86	7.29	6.81	7.82	7.04		
<b>Iwata, Yuna (JPN) (1997)</b>	time	7.06	13.12	19.52	26.12	32.92	39.85	46.87	54.08	54.08	3 / 3								
	reaction time	0.153	interval	6.06	6.40	6.80	6.93	7.02	7.21	7.40	# of strides	13.12	13.00	13.73	14.23	26.12	27.96	1.84	
	velocity	7.08	8.25	7.81	7.58	7.35	7.22	7.12	6.93	7.40	211.0	7.62	7.69	7.28	7.03	7.66	7.15		
<b>Takeishi, Konomi (JPN) (199)</b>	time	6.88	12.88	19.17	25.72	32.52	39.49	46.65	54.32	54.32	6 / 4								
	reaction time	0.161	interval	6.00	6.29	6.55	6.80	6.97	7.16	7.67	# of strides	12.88	12.84	13.77	14.83	25.72	28.60	2.88	
	velocity	7.27	8.33	7.95	7.63	7.35	7.17	6.98	6.52	7.36	199.2	7.76	7.79	7.26	6.74	7.78	6.99		
<b>Takashima, Saki (JPN) (2002)</b>	time	7.11	13.37	19.86	26.49	33.20	39.98	47.01	54.58	54.58	7 / 5								
	reaction time	0.194	interval	6.26	6.49	6.63	6.71	6.78	7.03	7.57	# of strides	13.37	13.12	13.49	14.60	26.49	28.09	1.60	
	velocity	7.03	7.99	7.70	7.54	7.45	7.37	7.11	6.61	7.33	209.2	7.48	7.62	7.41	6.85	7.55	7.12		
<b>Kobayashi, Mayu (JPN) (199)</b>	time	7.15	13.24	19.57	26.16	32.92	39.86	46.96	54.62	54.62	4 / 6								
	reaction time	0.161	interval	6.09	6.33	6.59	6.76	6.94	7.10	7.66	PB	# of strides	13.24	12.92	13.70	14.76	26.16	28.46	2.30
	velocity	6.99	8.21	7.90	7.59	7.40	7.20	7.04	6.53	7.32	203.7	7.55	7.74	7.30	6.78	7.65	7.03		
<b>Shintaku, Asami (JPN) (1994)</b>	time	7.12	13.34	19.84	26.49	33.25	40.17	47.38	55.25	55.25	9 / 7								
	reaction time	0.161	interval	6.22	6.50	6.65	6.76	6.92	7.21	7.87	# of strides	13.34	13.15	13.68	15.08	26.49	28.76	2.27	
	velocity	7.02	8.04	7.69	7.52	7.40	7.23	6.93	6.35	7.24	211.0	7.50	7.60	7.31	6.63	7.55	6.95		
<b>Matsumoto, Chika (JPN) (19)</b>	time	7.15	13.19	19.68	26.37	33.18	40.20	47.52	55.67	55.67	2 / 8								
	reaction time	0.149	interval	6.04	6.49	6.69	6.81	7.02	7.32	8.15	# of strides	13.19	13.18	13.83	15.47	26.37	29.30	2.93	
	velocity	6.99	8.28	7.70	7.47	7.34	7.12	6.83	6.13	7.19	7.58	7.59	7.23	6.46	7.58	6.83			

**Heat 3**

date 22-Jun-18

Yamanaka (2018) - Race analysis of men and women 400m at 2018 competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Iwata, Yuna (JPN) (1997)</b>	time	6.94	12.87	19.07	25.72	32.53	39.56	46.89	54.71	54.71	4 / 3							
	reaction time	0.160	interval	5.93	6.20	6.65	6.81	7.03	7.33	7.82	# of strides	12.87	12.85	13.84	15.15	25.72	28.99	3.27
	velocity	7.20	8.43	8.06	7.52	7.34	7.11	6.82	6.39	7.31	7.77	7.78	7.23	6.60	7.78	6.90		

**Heat 2**

date 22-Jun-18

Yamanaka (2018) - Race analysis of men and women 400m at 2018 competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Takeishi, Konomi (JPN) (199)</b>	time	6.87	12.73	18.84	25.27	32.00	39.07	46.33	54.04	54.04	4 / 1							
	reaction time	0.149	interval	5.86	6.11	6.43	6.73	7.07	7.26	7.71	# of strides	12.73	12.54	13.80	14.97	25.27	28.77	3.50
	velocity	7.28	8.53	8.18	7.78	7.43	7.07	6.89	6.49	7.40	200.7	7.86	7.97	7.25	6.68	7.91	6.95	
<b>Kawada, Ayaka (JPN) (1999)</b>	time	6.90	12.78	18.90	25.35	32.09	39.09	46.35	54.05	54.05	5 / 2							

reaction time	0.174	interval	5.88	6.12	6.45	6.74	7.00	7.26	7.70		# of strides	12.78	12.57	13.74	14.96	25.35	28.70	3.35
velocity	7.25	8.50	8.17	7.75	7.42	7.14	6.89	6.49	7.40		210.7	7.82	7.96	7.28	6.68	7.89	6.97	

**Heat 1**

date 22-Jun-18

Yamanaka (2018) - Race analysis of men and women 400m at 2018 competition

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Aoyama, Seika (JPN) (1996)</b> time	7.26	13.37	19.70	26.39	33.30	40.63	48.11	55.92	55.92	4 / 5							
reaction time	0.190	interval	6.11	6.33	6.69	6.91	7.33	7.48	7.81	# of strides	13.37	13.02	14.24	15.29	26.39	29.53	3.14
velocity	6.89	8.18	7.90	7.47	7.24	6.82	6.68	6.40	7.15	214.7	7.48	7.68	7.02	6.54	7.58	6.77	

**2018 Bauhaus Galan (Stockholm, SWE)****FINAL**

date 10-Jun-18

Omega Timing (2018) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Naser, Salwa Eid (BRN) (1991)</b> time	12.4		24.2	36.7	49.84	49.84			49.84	6 / 1							
reaction time	0.165	interval	11.8	12.5	13.1	NR			NR	# of strides	12.40	11.80	12.50	13.14	24.20	25.64	1.44
velocity	8.06	8.47	8.00	7.61	8.03	184.7	8.06	8.47	8.00	7.61	8.26	7.80					
<b>Francis Phyllis (USA) (1992)</b> time	12.3		24.0	36.7	50.07	50.07			50.07	5 / 2							
reaction time	0.190	interval	11.7	12.7	13.4					# of strides	12.30	11.70	12.70	13.37	24.00	26.07	2.07
velocity	8.13	8.55	7.87	7.48	7.99	179.0	8.13	8.55	7.87	7.48	8.33	7.67					
<b>Beard, Jessica (USA) (1989)</b> time	12.4		24.1	36.9	50.55	50.55			50.55	4 / 3							
reaction time	0.182	interval	11.7	12.8	13.7					# of strides	12.40	11.70	12.80	13.65	24.10	26.45	2.35
velocity	8.06	8.55	7.81	7.33	7.91	192.2	8.06	8.55	7.81	7.33	8.30	7.56					
<b>Little, Shamier (USA) (1995)</b> time	12.5		24.5	37.3	50.82	50.82			50.82	7 / 4							
reaction time	0.203	interval	12.0	12.8	13.5					# of strides	12.50	12.00	12.80	13.52	24.50	26.32	1.82
velocity	8.00	8.33	7.81	7.40	7.87	185.0	8.00	8.33	7.81	7.40	8.16	7.60					
<b>Stepter, Jaide (USA) (1994)</b> time	12.4		24.2	36.9	50.99	50.99			50.99	3 / 5							
reaction time	0.149	interval	11.8	12.7	14.1					# of strides	12.40	11.80	12.70	14.09	24.20	26.79	2.59
velocity	8.06	8.47	7.87	7.10	7.84	190.2	8.06	8.47	7.87	7.10	8.26	7.47					
<b>Okolo, Courtney (USA) (1991)</b> time	12.5		24.5	37.0	51.28	51.28			51.28	8 / 6							
reaction time	0.234	interval	12.0	12.5	14.3					# of strides	12.50	12.00	12.50	14.28	24.50	26.78	2.28
velocity	8.00	8.33	8.00	7.00	7.80	194.0	8.00	8.33	8.00	7.00	8.16	7.47					
<b>Święty-Ersetic, Justyna (POL) (1991)</b> time	12.8		24.8	37.6	51.34	51.34			51.34	2 / 7							
reaction time	0.208	interval	12.0	12.8	13.7					# of strides	12.80	12.00	12.80	13.74	24.80	26.54	1.74
velocity	7.81	8.33	7.81	7.28	7.79	211.7	7.81	8.33	7.81	7.28	8.06	7.54					
<b>Hjelmer, Moa (SWE) (1990)</b> time	12.6		24.8	38.4	53.47	53.47			53.47	1 / 8							
reaction time	0.160	interval	12.2	13.6	15.1					# of strides	12.60	12.20	13.60	15.07	24.80	28.67	3.87
velocity	7.94	8.20	7.35	6.64	7.48	198.0	7.94	8.20	7.35	6.64	8.06	6.98					

**2018 Bislett Games (Oslo, NOR)****FINAL**

date 07-Jun-18

Omega Timing (2018) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Naser, Salwa Eid (BRN) (1991)</b> time	12.4		24.0	36.5	49.98	49.98			49.98	5 / 1							
reaction time	0.161	interval	11.6	12.5	13.5					# of strides	12.40	11.60	12.50	13.48	24.00	25.98	1.98
velocity	8.06	8.62	8.00	7.42	8.00	186.0	8.06	8.62	8.00	7.42	8.33	7.70					
<b>Francis Phyllis (USA) (1992)</b> time	12.3		23.8	36.4	50.47	50.47			50.47	4 / 2							
reaction time	0.205	interval	11.5	12.6	14.1					# of strides	12.30	11.50	12.60	14.07	23.80	26.67	2.87
velocity	8.13	8.70	7.94	7.11	7.93	177.0	8.13	8.70	7.94	7.11	8.40	7.50					
<b>Wimbley, Shakima (USA) (1991)</b> time	12.2		23.8	36.6	50.53	50.53			50.53	6 / 3							
reaction time	0.219	interval	11.6	12.8	13.9					# of strides	12.20	11.60	12.80	13.93	23.80	26.73	2.93
velocity	8.20	8.62	7.81	7.18	7.92	180.2	8.20	8.62	7.81	7.18	8.40	7.48					
<b>Beard, Jessica (USA) (1989)</b> time	12.7		24.3	37.5	50.57	50.57			50.57	3 / 4							
reaction time	0.287	interval	11.6	13.2	13.1					# of strides	12.70	11.60	13.20	13.07	24.30	26.27	1.97
velocity	7.87	8.62	7.58	7.65	7.91	187.7	7.87	8.62	7.58	7.65	8.23	7.61					
<b>Stepter, Jaide (USA) (1994)</b> time	12.3		23.9	36.9	50.78	50.78			50.78	2 / 5							
reaction time	0.166	interval	11.6	13.0	13.9					# of strides	12.30	11.60	13.00	13.88	23.90	26.88	2.98
velocity	8.13	8.62	7.69	7.20	7.88	188.5	8.13	8.62	7.69	7.20	8.37	7.44					
<b>Okolo, Courtney (USA) (1991)</b> time	12.3		24.1	36.7	51.22	51.22			51.22	7 / 6							
reaction time	0.236	interval	11.8	12.6	14.5					# of strides	12.30	11.80	12.60	14.52	24.10	27.12	3.02
velocity	8.13	8.47	7.94	6.89	7.81	194.7	8.13	8.47	7.94	6.89	8.30	7.37					
<b>Onuora, Anyika (GBR) (1984)</b> time	12.9		25.1	38.4	51.60	51.60			51.60	8 / 7							
reaction time	0.156	interval	12.2	13.3	13.2					# of strides	12.90	12.20	13.30	13.20	25.10	26.50	1.40
velocity	7.75	8.20	7.52	7.58	7.75	200.0	7.75	8.20	7.52	7.58	7.97	7.55					
<b>Guei, Floria (FRA) (1990)</b> time	12.4		24.5	37.7	51.84	51.84			51.84	1 / 8							
reaction time	0.194	interval	12.1	13.2	14.1					# of strides	12.40	12.10	13.20	14.14	24.50	27.34	2.84
velocity	8.06	8.26	7.58	7.07	7.72	197.0	8.06	8.26	7.58	7.07	8.16	7.32					

**2018 Shimane High School Championships (Izumo, JPN)****FINAL**

date 25-May-18

Shimizu (2018) - shimane high school championships 2018 - biomechanics data analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Toya, Moenan (JPN)</b> time	13.59		27.33	42.33	58.16	58.16			58.16	4 / 1							
reaction time		interval	13.74	15.00	15.83					# of strides	13.59	13.74	15.00	15.83	27.33	30.83	3.50
velocity	7.36	7.28	6.67	6.32	6.88					7.36	7.28	6.67	6.32	7.32	6.49		
<b>Watanabe, Suzuka (JPN) (20)</b> time	14.00		28.32	43.65	60.17	60.17			60.17	5 / 2							



reaction time	interval		14.32	15.33	16.52		# of strides	14.00	14.32	15.33	16.52	28.32	31.85	3.53
	velocity	7.14	6.98	6.52	6.05	6.65		7.14	6.98	6.52	6.05	7.06	6.28	
<b>Nakabayashi, Aya (JPN)</b>	time	14.26	28.53	44.14	60.62	60.62	3 / 3							
reaction time	interval		14.27	15.61	16.48		# of strides	14.26	14.27	15.61	16.48	28.53	32.09	3.56
	velocity	7.01	7.01	6.41	6.07	6.60		7.01	7.01	6.41	6.07	7.01	6.23	
<b>Shibuya, Rika (JPN)</b>	time	14.18	28.60	43.98	60.63	60.63	7 / 4							
reaction time	interval		14.42	15.38	16.65		# of strides	14.18	14.42	15.38	16.65	28.60	32.03	3.43
	velocity	7.05	6.93	6.50	6.01	6.60		7.05	6.93	6.50	6.01	6.99	6.24	
<b>Takahara, Nanami (JPN)</b>	time	14.41	28.78	44.10	61.04	61.04	2 / 5							
reaction time	interval		14.37	15.32	16.94		# of strides	14.41	14.37	15.32	16.94	28.78	32.26	3.48
	velocity	6.94	6.96	6.53	5.90	6.55		6.94	6.96	6.53	5.90	6.95	6.20	
<b>Amano, Iori (JPN)</b>	time	14.61	28.97	44.26	61.20	61.21	8 / 6							
reaction time	interval		14.36	15.29	16.94		# of strides	14.61	14.36	15.29	16.94	28.97	32.23	3.26
	velocity	6.84	6.96	6.54	5.90	6.53		6.84	6.96	6.54	5.90	6.90	6.21	
<b>Hiwa, Hiyori (JPN)</b>	time	14.45	28.98	44.33	61.85	61.85	6 / 7							
reaction time	interval		14.53	15.35	17.52		# of strides	14.45	14.53	15.35	17.52	28.98	32.87	3.89
	velocity	6.92	6.88	6.51	5.71	6.47		6.92	6.88	6.51	5.71	6.90	6.08	
<b>Natsuki, Okuni (JPN)</b>	time	14.56	29.12	45.16	62.47	62.47	1 / 8							
reaction time	interval		14.56	16.04	17.31		# of strides	14.56	14.56	16.04	17.31	29.12	33.35	4.23
	velocity	6.87	6.87	6.23	5.78	6.40		6.87	6.87	6.23	5.78	6.87	6.00	

## 2018 Seiko Golden Grand Prix (Osaka, JPN)

## FINAL

date 20-May-18

Yamanaka (2018) - Race analysis of men and women 400m at 2018 competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Świąty-Ersetic, Justyna (POL)</b>	time	7.01	12.72	18.55	24.67	30.92	37.44	44.12	51.05	51.05	6 / 1							
reaction time	0.216 interval		5.71	5.83	6.12	6.25	6.52	6.68	6.93	PB	# of strides	12.72	11.95	12.77	13.61	24.67	26.38	1.71
	velocity	7.13	8.76	8.58	8.17	8.00	7.67	7.49	7.22	7.84	211.5	7.86	8.37	7.83	7.35	8.11	7.58	
<b>Harper, Daina (USA) (1995)</b>	time	6.73	12.36	18.18	24.25	30.49	37.03	43.85	51.29	51.29	5 / 2							
reaction time	0.205 interval		5.63	5.82	6.07	6.24	6.54	6.82	7.44		# of strides	12.36	11.89	12.78	14.26	24.25	27.04	2.79
	velocity	7.43	8.88	8.59	8.24	8.01	7.65	7.33	6.72	7.80	185.7	8.09	8.41	7.82	7.01	8.25	7.40	
<b>Rubie, Anneliese (AUS) (199)</b>	time	6.76	12.62	18.75	25.02	31.49	38.11	44.81	51.82	51.82	3 / 3							
reaction time	0.184 interval		5.86	6.13	6.27	6.47	6.62	6.70	7.01		# of strides	12.62	12.40	13.09	13.71	25.02	26.80	1.78
	velocity	7.40	8.53	8.16	7.97	7.73	7.55	7.46	7.13	7.72		7.92	8.06	7.64	7.29	7.99	7.46	
<b>Latiševa-Čudane, Gunta (LA)</b>	time	6.75	12.55	18.45	24.60	30.96	37.65	44.49	51.83	51.83	4 / 4							
reaction time	0.203 interval		5.80	5.90	6.15	6.36	6.69	6.84	7.34		# of strides	12.55	12.05	13.05	14.18	24.60	27.23	2.63
	velocity	7.41	8.62	8.47	8.13	7.86	7.47	7.31	6.81	7.72		7.97	8.30	7.66	7.05	8.13	7.34	
<b>Wyciszewicz, Patrycja (POL)</b>	time	6.96	12.74	18.67	24.81	31.14	37.80	44.73	52.06	52.06	7 / 5							
reaction time	0.190 interval		5.78	5.93	6.14	6.33	6.66	6.93	7.33		# of strides	12.74	12.07	12.99	14.26	24.81	27.25	2.44
	velocity	7.18	8.65	8.43	8.14	7.90	7.51	7.22	6.82	7.68		7.85	8.29	7.70	7.01	8.06	7.34	
<b>Takeishi, Konomi (JPN) (199)</b>	time	6.76	12.63	18.72	25.23	32.09	39.23	46.45	53.89	53.89	2 / 6							
reaction time	0.148 interval		5.87	6.09	6.51	6.86	7.14	7.22	7.44		# of strides	12.63	12.60	14.00	14.66	25.23	28.66	3.43
	velocity	7.40	8.52	8.21	7.68	7.29	7.00	6.93	6.72	7.42		7.92	7.94	7.14	6.82	7.93	6.98	
<b>Kashiyama, Kaede (JPN) (19)</b>	time	7.09	13.12	19.44	26.03	32.82	39.94	47.21	54.92	54.92	9 / 7							
reaction time	0.203 interval		6.03	6.32	6.59	6.79	7.12	7.27	7.71		# of strides	13.12	12.91	13.91	14.98	26.03	28.89	2.86
	velocity	7.05	8.29	7.91	7.59	7.36	7.02	6.88	6.49	7.28		7.62	7.75	7.19	6.68	7.68	6.92	
<b>Aoyama, Seika (JPN) (1996)</b>	time	7.12	13.06	19.34	25.94	32.91	40.39	48.31	56.95	56.95	8 / 8							
reaction time	0.200 interval		5.94	6.28	6.60	6.97	7.48	7.92	8.64		# of strides	13.06	12.88	14.45	16.56	25.94	31.01	5.07
	velocity	7.02	8.42	7.96	7.58	7.17	6.68	6.31	5.79	7.02		7.66	7.76	6.92	6.04	7.71	6.45	

## 2018 Shizuoka International Meeting (Fukuoro, JPN)

## A FINAL

date 03-May-18

Yamanaka (2018) - Race analysis of men and women 400m at 2018 competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Kawada, Ayaka (JPN) (1999)</b>	time	7.06	13.12	19.37	25.84	32.55	39.40	46.36	53.58	53.58	4 / 1							
reaction time	0.184 interval		6.06	6.25	6.47	6.71	6.85	6.96	7.22		# of strides	13.12	12.72	13.56	14.18	25.84	27.74	1.90
	velocity	7.08	8.25	8.00	7.73	7.45	7.30	7.18	6.93	7.47		210.2	7.62	7.86	7.37	7.05	7.74	7.21
<b>Takeishi, Konomi (JPN) (199)</b>	time	6.97	13.01	19.22	25.65	32.34	39.31	46.51	54.15	54.15	5 / 3							
reaction time	0.169 interval		6.04	6.21	6.43	6.69	6.97	7.20	7.64		# of strides	13.01	12.64	13.66	14.84	25.65	28.50	2.85
	velocity	7.17	8.28	8.05	7.78	7.47	7.17	6.94	6.54	7.39		199.5	7.69	7.91	7.32	6.74	7.80	7.02
<b>Iwata, Yuna (JPN) (1997)</b>	time	6.96	13.04	19.29	25.74	32.44	39.35	46.56	54.16	54.16	8 / 4							
reaction time	0.163 interval		6.08	6.25	6.45	6.70	6.91	7.21	7.60		# of strides	13.04	12.70	13.61	14.81	25.74	28.42	2.68
	velocity	7.18	8.22	8.00	7.75	7.46	7.24	6.93	6.58	7.39		215.0	7.67	7.87	7.35	6.75	7.77	7.04
<b>Aoyama, Seika (JPN) (1996)</b>	time	7.15	13.20	19.49	25.89	32.58	39.59	47.19	55.86	55.86	6 / 7							
reaction time	0.229 interval		6.05	6.29	6.40	6.69	7.01	7.60	8.67		# of strides	13.20	12.69	13.70	16.27	25.89	29.97	4.08
	velocity	6.99	8.26	7.95	7.81	7.47	7.13	6.58	5.77	7.16		211.7	7.58	7.88	7.30	6.15	7.72	6.67

## 2017 National Sports Festival (Matsuyama, JPN)

## U19 FINAL

date 08-Oct-17

(2017) - fldata-store.com/2017/10/12/post-1100/

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Kawada, Ayaka (JPN) (1999)</b>	time		12.96		25.41		39.11		53.56	53.56	5 / 1							
reaction time	0.220 interval				12.45		13.70		14.45		# of strides	12.96	12.45	13.70	14.45	25.41	28.15	2.74
	velocity		7.72		8.03		7.30		6.92	7.47		209.5	7.72	8.03	7.30	6.92	7.10	

<b>Okumura, Yuri (JPN) (2000)</b>	time	12.86	25.43	39.21	54.11	54.11	7 / 2											
	reaction time	0.171	interval	12.57	13.78	14.90	# of strides	12.86	12.57	13.78	14.90	25.43	28.68	3.25				
	velocity	7.78	7.96	7.26	6.71	7.39	210.0	7.78	7.96	7.26	6.71	7.86	6.97					
<b>Shiomi, Ayano (JPN) (1999)</b>	time		26.05	40.03	54.62	54.62	9 / 3											
	reaction time	0.192	interval	13.98	14.59		# of strides			13.98	14.59	26.05	28.57	2.52				
	velocity		7.68	7.15	6.85	7.32	223.5			7.15	6.85	7.68	7.00					
<b>Katayama, Shiori (JPN) (1999)</b>	time	13.19	26.01	40.16	55.18	55.18	2 / 4											
	reaction time	0.211	interval	12.82	14.15	15.02	# of strides	13.19	12.82	14.15	15.02	26.01	29.17	3.16				
	velocity	7.58	7.80	7.07	6.66	7.25	195.7	7.58	7.80	7.07	6.66	7.69	6.86					
<b>Yamada, Miki (JPN) (1999)</b>	time	13.54	26.19	40.32	55.46	55.46	6 / 5											
	reaction time	0.274	interval	12.65	14.13	15.14	# of strides	13.54	12.65	14.13	15.14	26.19	29.27	3.08				
	velocity	7.39	7.91	7.08	6.61	7.21	204.2	7.39	7.91	7.08	6.61	7.64	6.83					
<b>Takashima, Natsumi (JPN) (2000)</b>	time	13.60	26.48	40.75	55.57	55.57	3 / 6											
	reaction time	0.226	interval	12.88	14.27	14.82	# of strides	13.60	12.88	14.27	14.82	26.48	29.09	2.61				
	velocity	7.35	7.76	7.01	6.75	7.20	213.7	7.35	7.76	7.01	6.75	7.55	6.88					
<b>Nakamichi, Ayane (JPN) (1999)</b>	time	13.37	26.40	40.63	55.60	55.60	8 / 7											
	reaction time	0.208	interval	13.03	14.23	14.97	# of strides	13.37	13.03	14.23	14.97	26.40	29.20	2.80				
	velocity	7.48	7.67	7.03	6.68	7.19	203.0	7.48	7.67	7.03	6.68	7.58	6.85					
<b>Aono, Akari (JPN) (2000)</b>	time	13.59	26.74	40.80	56.13	56.13	4 / 8											
	reaction time		interval	13.15	14.06	15.33	# of strides	13.59	13.15	14.06	15.33	26.74	29.39	2.65				
	velocity	7.36	7.60	7.11	6.52	7.13	211.0	7.36	7.60	7.11	6.52	7.48	6.81					

## FINAL

date 08-Oct-17

Yamanaka (2017) - male and female 400m analysis in the 2017 season

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
<b>Kitamura, Yume (JPN) (1995)</b>	time	7.12	13.01	19.20	25.71	32.37	39.22	46.30	53.71	6 / 1								
	reaction time	0.168	interval	5.89	6.19	6.51	6.66	6.85	7.08	PB	# of strides	13.01	12.70	13.51	14.49	25.71	28.00	2.29
	velocity	7.02	8.49	8.08	7.68	7.51	7.30	7.06	6.75	7.45	211.0	7.69	7.87	7.40	6.90	7.78	7.14	
<b>Iwata, Yuna (JPN) (1997)</b>	time	6.79	12.51	18.54	24.94	31.71	38.84	46.30	54.16	5 / 2								
	reaction time	0.157	interval	5.72	6.03	6.40	6.77	7.13	7.46	7.86	# of strides	12.51	12.43	13.90	15.32	24.94	29.22	4.28
	velocity	7.36	8.74	8.29	7.81	7.39	7.01	6.70	6.36	7.39	216.0	7.99	8.05	7.19	6.53	8.02	6.84	
<b>Takeishi, Konomi (JPN) (1999)</b>	time	6.83	12.67	18.79	25.31	32.14	39.27	46.62	54.46	4 / 3								
	reaction time	0.168	interval	5.84	6.12	6.52	6.83	7.13	7.35	7.84	# of strides	12.67	12.64	13.96	15.19	25.31	29.15	3.84
	velocity	7.32	8.56	8.17	7.67	7.32	7.01	6.80	6.38	7.34	196.7	7.89	7.91	7.16	6.58	7.90	6.86	
<b>Aoki, Sayaka (JPN) (1986)</b>	time	6.74	12.77	19.10	25.74	32.58	39.67	47.13	55.19	7 / 4								
	reaction time	0.202	interval	6.03	6.33	6.64	6.84	7.09	7.46	8.06	# of strides	12.77	12.97	13.93	15.52	25.74	29.45	3.71
	velocity	7.42	8.29	7.90	7.53	7.31	7.05	6.70	6.20	7.25	202.2	7.83	7.71	7.18	6.44	7.77	6.79	
<b>Matsumoto, Chika (JPN) (1999)</b>	time	7.23	13.51	20.05	26.81	33.66	40.73	48.01	55.63	8 / 5								
	reaction time	0.214	interval	6.28	6.54	6.76	6.85	7.07	7.28	7.62	# of strides	13.51	13.30	13.92	14.90	26.81	28.82	2.01
	velocity	6.92	7.96	7.65	7.40	7.30	7.07	6.87	6.56	7.19	202.2	7.40	7.52	7.18	6.71	7.46	6.94	
<b>Aoki, Rin (JPN) (1998)</b>	time	7.12	13.04	19.30	26.00	33.05	40.38	47.91	55.80	2 / 6								
	reaction time	0.159	interval	5.92	6.26	6.70	7.05	7.33	7.53	7.89	# of strides	13.04	12.96	14.38	15.42	26.00	29.80	3.80
	velocity	7.02	8.45	7.99	7.46	7.09	6.82	6.64	6.34	7.17	218.0	7.67	7.72	6.95	6.49	7.69	6.71	
<b>Kashiyama, Kaede (JPN) (1999)</b>	time	7.11	13.06	19.35	26.10	33.08	40.31	47.86	55.96	3 / 7								
	reaction time	0.277	interval	5.95	6.29	6.75	6.98	7.23	7.55	8.10	# of strides	13.06	13.04	14.21	15.65	26.10	29.86	3.76
	velocity	7.03	8.40	7.95	7.41	7.16	6.92	6.62	6.17	7.15	209.0	7.66	7.67	7.04	6.39	7.66	6.70	
<b>Hirota, Yuki (JPN) (1995)</b>	time	7.62	13.97	20.42	27.12	33.96	41.00	48.30	55.98	9 / 8								
	reaction time	0.230	interval	6.35	6.45	6.70	6.84	7.04	7.30	7.68	# of strides	13.97	13.15	13.88	14.98	27.12	28.86	1.74
	velocity	6.56	7.87	7.75	7.46	7.31	7.10	6.85	6.51	7.15	197.7	7.16	7.60	7.20	6.68	7.37	6.93	

## U19 Semi-Final 2

date 08-Oct-17

(2017) - tfdata-store.com/2017/10/12/post-1100/

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Kawada, Ayaka (JPN) (1999)</b>	time	12.90		25.77		39.55		54.61	54.61	7 / 1							
	reaction time	0.225	interval	12.87		13.78		15.06		# of strides	12.90	12.87	13.78	15.06	25.77	28.84	3.07
	velocity	7.75		7.77		7.26		6.64	7.32	211.0	7.75	7.77	7.26	6.64	7.76	6.93	
<b>Yamada, Miki (JPN) (1999)</b>	time	13.02		25.53		39.30		55.00	55.00	6 / 2							
	reaction time	0.210	interval	12.51		13.77		15.70		# of strides	13.02	12.51	13.77	15.70	25.53	29.47	3.94
	velocity	7.68		7.99		7.26		6.37	7.27	211.5	7.68	7.99	7.26	6.37	7.83	6.79	
<b>Nakamichi, Ayane (JPN) (1999)</b>	time	13.22		26.18		40.40		55.64	55.64	4 / 3							
	reaction time	0.238	interval	12.96		14.22		15.24		# of strides	13.22	12.96	14.22	15.24	26.18	29.46	3.28
	velocity	7.56		7.72		7.03		6.56	7.19	205.5	7.56	7.72	7.03	6.56	7.64	6.79	
<b>Takashima, Natsumi (JPN) (2000)</b>	time	13.38		26.41		40.50		55.73	55.73	8 / 4							
	reaction time	0.226	interval	13.03		14.09		15.23		# of strides	13.38	13.03	14.09	15.23	26.41	29.32	2.91
	velocity	7.47		7.67		7.10		6.57	7.18	217.7	7.47	7.67	7.10	6.57	7.57	6.82	
<b>Daichi, Saori (JPN) (2000)</b>	time	13.62		26.72		40.83		56.63	56.63	3 / 5							
	reaction time	0.254	interval	13.10		14.11		15.80		# of strides	13.62	13.10	14.11	15.80	26.72	29.91	3.19
	velocity	7.34		7.63		7.09		6.33	7.06	205.0	7.34	7.63	7.09	6.33	7.49	6.69	
<b>Kato, Shiho (JPN) (2000)</b>	time	13.27		26.37		40.71		56.64	56.64	9 / 6							
	reaction time	0.204	interval	13.10		14.34		15.93		# of strides	13.27	13.10	14.34	15.93	26.37	30.27	3.90
	velocity	7.54		7.63		6.97		6.28	7.06	212.0	7.54	7.63	6.97	6.28	7.58	6.61	





reaction time	0.180	interval		13.30	14.23	15.88	<b>PB</b>	# of strides	13.26	13.30	14.23	15.88	26.56	30.11	3.55
velocity			7.54	7.52	7.03	6.30	7.06	212.7	7.54	7.52	7.03	6.30	7.53	6.64	

## 2017 All Japan Corporate Championships (Osaka, JPN)

## FINAL

date 24-Sep-17

(2017) - [tdata-store.com/2017/10/05/post-1097/](http://tdata-store.com/2017/10/05/post-1097/)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Aoki, Sayaka (JPN) (1986)</b>	time	12.94	25.79	39.31	54.13	54.13	54.13	54.13	54.13	6 / 1							
reaction time	0.213	interval	12.85	13.52	14.82					# of strides	12.94	12.85	13.52	14.82	25.79	28.34	2.55
velocity		7.73	7.78	7.40	6.75	7.39				203.5	7.73	7.78	7.40	6.75	7.75	7.06	
<b>Takeishi, Konomi (JPN) (199)</b>	time	12.80	25.65	39.57	54.54	54.54	54.54	54.54	54.54	5 / 2							
reaction time	0.165	interval	12.85	13.92	14.97					# of strides	12.80	12.85	13.92	14.97	25.65	28.89	3.24
velocity		7.81	7.78	7.18	6.68	7.33				193.0	7.81	7.78	7.18	6.68	7.80	6.92	
<b>Kashiyama, Kaede (JPN) (19)</b>	time	13.22	26.00	39.55	54.91	54.91	54.91	54.91	54.91	7 / 3							
reaction time	0.243	interval	12.78	13.55	15.36					# of strides	13.22	12.78	13.55	15.36	26.00	28.91	2.91
velocity		7.56	7.82	7.38	6.51	7.28				205.2	7.56	7.82	7.38	6.51	7.69	6.92	
<b>Shingu, Miho (JPN) (1991)</b>	time	13.34	26.45	40.42	55.40	55.40	55.40	55.40	55.40	4 / 4							
reaction time	0.161	interval	13.11	13.97	14.98					# of strides	13.34	13.11	13.97	14.98	26.45	28.95	2.50
velocity		7.50	7.63	7.16	6.68	7.22				199.7	7.50	7.63	7.16	6.68	7.56	6.91	
<b>Otsuki, Naoko (JPN) (1991)</b>	time	13.37	26.46	40.63	56.59	56.59	56.59	56.59	56.59	8 / 5							
reaction time	0.318	interval	13.09	14.17	15.96					# of strides	13.37	13.09	14.17	15.96	26.46	30.13	3.67
velocity		7.48	7.64	7.06	6.27	7.07				206.0	7.48	7.64	7.06	6.27	7.56	6.64	
<b>Shintaku, Asami (JPN) (1994)</b>	time	13.65	26.95	41.04	56.81	56.81	56.81	56.81	56.81	9 / 6							
reaction time	0.152	interval	13.30	14.09	15.77					# of strides	13.65	13.30	14.09	15.77	26.95	29.86	2.91
velocity		7.33	7.52	7.10	6.34	7.04				227.7	7.33	7.52	7.10	6.34	7.42	6.70	
<b>Yamada, Hana (JPN) (1994)</b>	time			41.85	57.29	57.29	57.29	57.29	57.29	2 / 7							
reaction time	0.194	interval		15.44	15.44	15.44	15.44	15.44	15.44	# of strides							
velocity				7.17	6.48	6.98								15.44	6.48		
<b>Ito, Aimi (JPN) (1997)</b>	time	13.67	27.48	41.90	57.94	57.94	57.94	57.94	57.94	3 / 8							
reaction time	0.176	interval	13.81	14.42	16.04					# of strides	13.67	13.81	14.42	16.04	27.48	30.46	2.98
velocity		7.32	7.24	6.93	6.23	6.90				213.0	7.32	7.24	6.93	6.23	7.28	6.57	

## 2017 Chinese National Games (Tianjin, CHN)

## FINAL

date 03-Sep-17

Yang (2019) - analysis of the characteristics of Yang Huizhen's running speed in 400m

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Yang Huizhen (CHN) (1992)</b>	time	12.80	24.86	37.76	51.80	51.80	51.80	51.80	51.80	1 / 1							
reaction time		interval	12.06	12.90	14.04					# of strides	12.80	12.06	12.90	14.04	24.86	26.94	2.08
velocity		7.81	8.29	7.75	7.12	7.72				196.0	7.81	8.29	7.75	7.12	8.05	7.42	
<b>Cheng Chong (CHN) (1992)</b>	time	13.16	25.09	38.09	52.45	52.45	52.45	52.45	52.45	1 / 2							
reaction time		interval	11.93	13.00	14.36					# of strides	13.16	11.93	13.00	14.36	25.09	27.36	2.27
velocity		7.60	8.38	7.69	6.96	7.63				200.0	7.60	8.38	7.69	6.96	7.97	7.31	
<b>Tong Zenghuan (CHN) (199)</b>	time	13.13	25.46	38.39	52.76	52.76	52.76	52.76	52.76	1 / 3							
reaction time		interval	12.33	12.93	14.37					# of strides	13.13	12.33	12.93	14.37	25.46	27.30	1.84
velocity		7.62	8.11	7.73	6.96	7.58				199.0	7.62	8.11	7.73	6.96	7.86	7.33	
<b>Fu Na (CHN) (1997)</b>	time	13.13	25.36	38.59	53.25	53.25	53.25	53.25	53.25	1 / 4							
reaction time		interval	12.23	13.23	14.66					# of strides	13.13	12.23	13.23	14.66	25.36	27.89	2.53
velocity		7.62	8.18	7.56	6.82	7.51				198.0	7.62	8.18	7.56	6.82	7.89	7.17	
<b>Liang Nuo (CHN) (1999)</b>	time	12.56	24.89	38.49	53.99	53.99	53.99	53.99	53.99	1 / 5							
reaction time		interval	12.33	13.60	15.50					# of strides	12.56	12.33	13.60	15.50	24.89	29.10	4.21
velocity		7.96	8.11	7.35	6.45	7.41				202	7.96	8.11	7.35	6.45	8.04	6.87	
<b>Chen Jingwen (CHN) (1990)</b>	time	13.13	25.69	39.32	54.17	54.17	54.17	54.17	54.17	1 / 6							
reaction time		interval	12.56	13.63	14.85					# of strides	13.13	12.56	13.63	14.85	25.69	28.48	2.79
velocity		7.62	7.96	7.34	6.73	7.38				207.0	7.62	7.96	7.34	6.73	7.79	7.02	
<b>Pan Gaoqin (CHN) (1991)</b>	time	13.56	26.60	39.92	54.35	54.35	54.35	54.35	54.35	1 / 7							
reaction time		interval	13.04	13.32	14.43					# of strides	13.56	13.04	13.32	14.43	26.60	27.75	1.15
velocity		7.37	7.67	7.51	6.93	7.36				206.0	7.37	7.67	7.51	6.93	7.52	7.21	
<b>He Ke (CHN) (1993)</b>	time	13.30	26.00	39.43	54.43	54.43	54.43	54.43	54.43	1 / 8							
reaction time		interval	12.70	13.43	15.00					# of strides	13.30	12.70	13.43	15.00	26.00	28.43	2.43
velocity		7.52	7.87	7.45	6.67	7.35				211.0	7.52	7.87	7.45	6.67	7.69	7.03	

## 2017 Memorial van Damme (Brussels, BEL)

## FINAL

date 01-Sep-17

Omega Timing (2017) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Miller-Uibo, Shaunae (BAH)</b>	time	12.0	17.8	23.8	30.1	36.4	42.8	49.46	49.46	7 / 1							
reaction time	0.147	interval	5.80	6.00	6.30	6.30	6.40	6.66		# of strides	12.00	11.80	12.60	13.06	23.80	25.66	1.86
velocity		8.33	8.62	8.33	7.94	7.94	7.81	7.51	8.09	179.0	8.33	8.47	7.94	7.66	8.40	7.79	
<b>Naser, Salwa Eid (BRN) (199)</b>	time	12.2	17.9	23.9	30.0	36.4	42.9	49.88	49.88	6 / 2							
reaction time	0.158	interval	5.70	6.00	6.10	6.40	6.50	6.98	<b>NR AJR PB</b>	# of strides	12.20	11.70	12.50	13.48	23.90	25.98	2.08
velocity		8.20	8.77	8.33	8.20	7.81	7.69	7.16	8.02	186.0	8.20	8.55	8.00	7.42	8.37	7.70	
<b>Okolo, Courtney (USA) (199)</b>	time	12.5	18.4	24.4	30.7	37.2	43.9	50.91	50.91	4 / 3							
reaction time	0.259	interval	5.90	6.00	6.30	6.50	6.70	7.01		# of strides	12.50	11.90	12.80	13.71	24.40	26.51	2.11
velocity		8.00	8.47	8.33	7.94	7.69	7.46	7.13	7.86	192.7	8.00	8.40	7.81	7.29	8.20	7.54	

<b>Hastings, Natasha (USA) (19)</b>	time	12.2	18.2	24.6	31.0	37.3	43.9	50.98		9 / 4							
reaction time	0.197									# of strides	12.20	12.40	12.70	13.68	24.60	26.38	1.78
interval		6.00	6.40	6.40	6.30	6.60	7.08			194.0	8.20	8.06	7.87	7.31	8.13	7.58	
velocity		8.20	8.33	7.81	7.81	7.94	7.58	7.06	7.85								
<b>Jackson, Shericka (JAM) (19)</b>	time	12.5	18.4	24.6	31.0	37.6	44.3	51.16		3 / 5							
reaction time	0.193									# of strides	12.50	12.10	13.00	13.56	24.60	26.56	1.96
interval		5.90	6.20	6.40	6.60	6.70	6.86			197.5	8.00	8.26	7.69	7.37	8.13	7.53	
velocity		8.00	8.47	8.06	7.81	7.58	7.46	7.29	7.82								
<b>Williams-Mills, Novlene (JAM)</b>	time	12.4	18.2	24.2	30.5	37.1	44.0	51.27		8 / 6							
reaction time	0.238									# of strides	12.40	11.80	12.90	14.17	24.20	27.07	2.87
interval		5.80	6.00	6.30	6.60	6.90	7.27			202.0	8.06	8.47	7.75	7.06	8.26	7.39	
velocity		8.06	8.62	8.33	7.94	7.58	7.25	6.88	7.80								
<b>McPherson, Stephenie Ann</b>	time	12.4	18.2	24.2	30.6	37.3	44.3	51.72		5 / 7							
reaction time	0.140									# of strides	12.40	11.80	13.10	14.42	24.20	27.52	3.32
interval		5.80	6.00	6.40	6.70	7.00	7.42			186.0	8.06	8.47	7.63	6.93	8.26	7.27	
velocity		8.06	8.62	8.33	7.81	7.46	7.14	6.74	7.73								
<b>Jele, Lydia (BOT) (1990)</b>	time	12.6	18.4	24.6	31.1	37.9	45.1	53.11		2 / 8							
reaction time	0.193									# of strides	12.60	12.00	13.30	15.21	24.60	28.51	3.91
interval		5.80	6.20	6.50	6.80	7.20	8.01			178.3	7.94	8.33	7.52	6.57	8.13	7.02	
velocity		7.94	8.62	8.06	7.69	7.35	6.94	6.24	7.53								

## 2017 IAAF World Championships (London, GBR)

## FINAL

date 09-Aug-17

Pollitt (2018) - biomechanical report for the IAAF World Champs - London 2017 - Women's 400m

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
<b>Francis, Phyllis (USA) (1992)</b>	time	11.70		23.11		35.66		42.40		49.92	6 / 1								
reaction time	0.196			11.41		12.55		6.74		7.32	PB	# of strides	11.70	11.41	12.55	14.06	23.11	26.61	3.50
interval				8.76		7.97		7.42		6.83	8.01	8.55	8.76	7.97	7.11	8.65	7.52		
velocity		8.55																	
<b>Naser, Salwa Eid (BRN) (199)</b>	time	12.01		23.50		35.93		42.60		49.86	4 / 2								
reaction time	0.203			11.49		12.43		6.67		7.26	NR / NJR	# of strides	12.01	11.49	12.43	13.93	23.50	26.36	2.86
interval				8.33		8.70		8.05		7.50	7.99	189.6	8.33	8.70	8.05	7.18	8.51	7.59	
velocity		8.33																	
<b>Felix, Allyson (USA) (1985)</b>	time	11.46		22.70		35.46		42.31		49.90	5 / 3								
reaction time	0.184			11.24		12.76		6.85		7.59		# of strides	11.46	11.24	12.76	14.44	22.70	27.20	4.50
interval				8.73		8.90		7.84		7.30	7.99	181.6	8.73	8.90	7.84	6.93	8.81	7.35	
velocity		8.73																	
<b>Miller-Uibo, Shaunae (BAH)</b>	time	11.46		22.74		35.20		41.93		50.33	7 / 4								
reaction time	0.160			11.28		12.46		6.73		8.40		# of strides	11.46	11.28	12.46	15.13	22.74	27.59	4.85
interval				8.73		8.87		8.03		7.43	7.92	182.2	8.73	8.87	8.03	6.61	8.80	7.25	
velocity		8.73																	
<b>Jackson, Shericka (JAM) (19)</b>	time	11.91		23.43		36.28		43.10		50.57	2 / 5								
reaction time	0.194			11.52		12.85		6.82		7.47		# of strides	11.91	11.52	12.85	14.29	23.43	27.14	3.71
interval				8.68		7.78		7.33		6.69	7.88	198.6	8.40	8.68	7.78	7.00	8.54	7.37	
velocity		8.40																	
<b>McPherson, Stephenie Ann</b>	time	12.05		23.54		36.33		43.20		50.70	8 / 6								
reaction time	0.162			11.49		12.79		6.87		7.50		# of strides	12.05	11.49	12.79	14.37	23.54	27.16	3.62
interval				8.30		8.70		7.82		7.28	7.86	188.0	8.30	8.70	7.82	6.96	8.50	7.36	
velocity		8.30																	
<b>Mupopo, Kabange (ZAM) (1)</b>	time	11.66		23.40		36.26		43.16		50.97	9 / 7								
reaction time	0.184			11.74		12.86		6.90		7.81	DV	# of strides	11.66	11.74	12.86	14.71	23.40	27.57	4.17
interval				8.58		8.52		7.78		7.25	7.82	195.6	8.58	8.52	7.78	6.80	8.55	7.25	
velocity		8.58																	
<b>Williams-Mills, Novlene (JAM)</b>	time	12.16		23.75		36.54		43.51		51.21	3 / 7								
reaction time	0.272			11.59		12.79		6.97		7.70		# of strides	12.16	11.59	12.79	14.67	23.75	27.46	3.71
interval				8.22		8.63		7.82		7.17	7.77	202.2	8.22	8.63	7.82	6.82	8.42	7.28	
velocity		8.22																	

## Semi-Final 3

date 07-Aug-17

Pollitt (2018) - biomechanical report for the IAAF World Champs - London 2017 - Women's 400m

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
<b>Francis, Phyllis (USA) (1992)</b>	time	11.91		23.19		35.96		42.94		50.37	5 / 1								
reaction time	0.187			11.28		12.77		6.98		7.24		# of strides	11.91	11.28	12.77	14.22	23.19	26.99	3.80
interval				8.40		8.87		7.83		7.16	7.94	179.2	8.40	8.87	7.83	7.03	8.62	7.41	
velocity		8.40																	
<b>Mupopo, Kabange (ZAM) (1)</b>	time	12.09		23.74		36.32		43.04		50.60	4 / 2								
reaction time	0.204			11.65		12.58		6.72		7.36	DV	# of strides	12.09	11.65	12.58	14.08	23.74	26.66	2.92
interval				8.27		8.58		7.95		7.44	7.91	194.2	8.27	8.58	7.95	7.10	8.42	7.50	
velocity		8.27																	
<b>Gordon, Chrisann (JAM) (19)</b>	time	12.24		23.83		36.44		43.32		50.70	7 / 2								
reaction time	0.172			11.59		12.61		6.88		7.38		# of strides	12.24	11.59	12.61	14.26	23.83	26.87	3.04
interval				8.17		8.63		7.93		7.27	7.86	201.7	8.17	8.63	7.93	7.01	8.39	7.44	
velocity		8.17																	
<b>Montsho, Amantle (BOT) (1)</b>	time	12.09		23.70		36.58		43.55		51.08	6 / 3								
reaction time	0.203			11.61		12.88		6.97		7.53		# of strides	12.09	11.61	12.88	14.50	23.70	27.38	3.68
interval				8.27		8.61		7.76		7.17	7.80	187.0	8.27	8.61	7.76	6.90	8.44	7.30	
velocity		8.27																	
<b>Spelmeyer, Ruth Sophia (GE)</b>	time	12.74		24.76		37.59		44.34		51.61	3 / 4								
reaction time	0.164			12.02		12.83		6.75		7.27		# of strides	12.74	12.02	12.83	14.02	24.76	26.85	2.09
interval				7.85		8.32		7.79		7.41	7.73	189.7	7.85	8.32	7.79	7.13	8.08	7.45	
velocity		7.85																	
<b>Baumgart, Iga (POL) (1989)</b>	time	12.71		24.79		37.62		44.35		51.59	2 / 5								
reaction time	0.213			12.08		12.83		6.73		7.24		# of strides	12.71	12.08	12.83	13.97	24.79	26.80	2.01
interval				7.87		8.28		7.79		7.43	7.72	183.9	7.87	8.28	7.79	7.16	8.		

velocity	8.17	8.53	7.62	6.93	6.53	7.66	188.2	8.17	8.53	7.62	6.72	8.34	7.14
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**Semi-Final 2**

date 07-Aug-17

Pollitt (2018) - biomechanical report for the IAAF World Champs - London 2017 - Women's 400m

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Naser, Salwa Eid (BRN) (1991)</b> time	11.70	23.97	36.37	42.98	49.88	50.08	7 / 1										
reaction time 0.200 interval		12.27	12.40	6.61	6.90	NR / NJR	# of strides	11.70	12.27	12.40	13.51	23.97	25.91	1.94			
velocity	8.55	8.15	8.06	7.56	7.25	7.99	189.2	8.55	8.15	8.06	7.40	8.34	7.72				
<b>Felix, Allyson (USA) (1985)</b> time	11.65	23.22	36.01	42.98	49.94	50.12	4 / 2										
reaction time 0.178 interval		11.57	12.79	6.97	6.96	# of strides	11.65	11.57	12.79	13.93	23.22	26.72	3.50				
velocity	8.58	8.64	7.82	7.17	7.18	7.98	181.0	8.58	8.64	7.82	7.18	8.61	7.49				
<b>Williams-Mills, Novlene (JAM) (1981)</b> time	12.12	23.75	36.43	43.11	50.40	50.67	9 / 3										
reaction time 0.266 interval		11.63	12.68	6.68	7.29	# of strides	12.12	11.63	12.68	13.97	23.75	26.65	2.90				
velocity	8.25	8.60	7.89	7.49	6.86	7.89	201.0	8.25	8.60	7.89	7.16	8.42	7.50				
<b>Jackson, Shericka (JAM) (1981)</b> time	12.09	23.59	36.40	43.21	50.51	50.70	5 / 4										
reaction time 0.191 interval		11.50	12.81	6.81	7.30	# of strides	12.09	11.50	12.81	14.11	23.59	26.92	3.33				
velocity	8.27	8.70	7.81	7.34	6.85	7.89	198.5	8.27	8.70	7.81	7.09	8.48	7.43				
<b>Jele, Lydia (BOT) (1990)</b> time	12.20	24.02	37.07	44.01	51.37	51.57	2 / 5										
reaction time 0.200 interval		11.82	13.05	6.94	7.36	# of strides	12.20	11.82	13.05	14.30	24.02	27.35	3.33				
velocity	8.20	8.46	7.66	7.20	6.79	7.76	195.5	8.20	8.46	7.66	6.99	8.33	7.31				
<b>Ajayi, Yinka (NGR) (1997)</b> time	12.56	24.74	37.71	44.55	51.85	52.10	8 / 6										
reaction time 0.247 interval		12.18	12.97	6.84	7.30	# of strides	12.56	12.18	12.97	14.14	24.74	27.11	2.37				
velocity	7.96	8.21	7.71	7.31	6.85	7.68	198.2	7.96	8.21	7.71	7.07	8.08	7.38				
<b>Sheoran, Nirmala (IND) (1991)</b> time	12.62	24.53	38.16	45.26	52.78	53.07	3 / 7										
reaction time 0.285 interval		11.91	13.63	7.10	7.52	DV	# of strides	12.62	11.91	13.63	14.62	24.53	28.25	3.72			
velocity	7.92	8.40	7.34	7.04	6.65	7.54	182.6	7.92	8.40	7.34	6.84	8.15	7.08				
<b>Vasilíou, Irini (GRE) (1990)</b> time	12.43	24.51	37.56	44.91	53.08	53.27	6 / 7										
reaction time 0.190 interval		12.08	13.05	7.35	8.17	# of strides	12.43	12.08	13.05	15.52	24.51	28.57	4.06				
velocity	8.05	8.28	7.66	6.80	6.12	7.51	190.4	8.05	8.28	7.66	6.44	8.16	7.00				

**Semi-Final 1**

date 07-Aug-17

Pollitt (2018) - biomechanical report for the IAAF World Champs - London 2017 - Women's 400m

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Miller-Uibo, Shaunae (BAH) (1988)</b> time	11.93	23.58	36.12	42.85	50.20	50.36	5 / 1										
reaction time 0.161 interval		11.65	12.54	6.73	7.35	# of strides	11.93	11.65	12.54	14.08	23.58	26.62	3.04				
velocity	8.38	8.58	7.97	7.43	6.80	7.94	180.2	8.38	8.58	7.97	7.10	8.48	7.51				
<b>McPherson, Stephanie Ann (1981)</b> time	12.18	23.73	36.47	43.16	50.40	50.56	7 / 2										
reaction time 0.159 interval		11.55	12.74	6.69	7.24	# of strides	12.18	11.55	12.74	13.93	23.73	26.67	2.94				
velocity	8.21	8.66	7.85	7.47	6.91	7.91	188.3	8.21	8.66	7.85	7.18	8.43	7.50				
<b>Hayes, Quanera (USA) (1992)</b> time	12.37	24.67	37.02	43.61	50.52	50.71	6 / 3										
reaction time 0.191 interval		12.30	12.35	6.59	6.91	# of strides	12.37	12.30	12.35	13.50	24.67	25.85	1.18				
velocity	8.08	8.13	8.10	7.59	7.24	7.89	175.6	8.08	8.13	8.10	7.41	8.11	7.74				
<b>Latiševa-Čudare, Gunta (LAT) (1981)</b> time	12.56	24.50	37.36	44.23	51.35	51.57	8 / 4										
reaction time 0.216 interval		11.94	12.86	6.87	7.12	# of strides	12.56	11.94	12.86	13.99	24.50	26.85	2.35				
velocity	7.96	8.38	7.78	7.28	7.02	7.76	195.4	7.96	8.38	7.78	7.15	8.16	7.45				
<b>Gómez, Roxana (CUB) (1999)</b> time	12.60	24.59	37.38	44.28	51.76	52.01	3 / 5										
reaction time 0.251 interval		11.99	12.79	6.90	7.48	# of strides	12.60	11.99	12.79	14.38	24.59	27.17	2.58				
velocity	7.94	8.34	7.82	7.25	6.68	7.69	190.3	7.94	8.34	7.82	6.95	8.13	7.36				
<b>Razor, Bianca (ROU) (1994)</b> time	12.58	24.58	37.63	44.55	51.91	52.09	2 / 6										
reaction time 0.180 interval		12.00	13.05	6.92	7.36	# of strides	12.58	12.00	13.05	14.28	24.58	27.33	2.75				
velocity	7.95	8.33	7.66	7.23	6.79	7.68	202.4	7.95	8.33	7.66	7.00	8.14	7.32				
<b>George, Patience (NGR) (1991)</b> time	12.09	23.79	37.44	44.41	52.41	52.60	4 / 7										
reaction time 0.189 interval		11.70	13.65	6.97	8.00	# of strides	12.09	11.70	13.65	14.97	23.79	28.62	4.83				
velocity	8.27	8.55	7.33	7.17	6.25	7.60	199.0	8.27	8.55	7.33	6.68	8.41	6.99				
<b>Kelly, Ashley (IVB) (1991)</b> time	11.89	23.83	37.75	44.67	54.32	54.50	9 / 8										
reaction time 0.184 interval		11.94	13.92	6.92	9.65	# of strides	11.89	11.94	13.92	16.57	23.83	30.49	6.66				
velocity	8.41	8.38	7.18	7.23	5.18	7.34	205.7	8.41	8.38	7.18	6.04	8.39	6.56				

**2017 Japanese National High School Championships (Yamagata, JPN)****FINAL**

date 29-Jul-17

Kota (2017) - 70th high school championships: JAF scientific committee - biomechanics data collection

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Kawada, Ayaka (JPN) (1999)</b> time	6.98	12.86	19.02	25.46	32.16	39.20	46.40	53.92	53.92	5 / 1							
reaction time 0.205 interval		5.88	6.16	6.44	6.70	7.04	7.20	7.52	# of strides	12.86	12.60	13.74	14.72	25.46	28.46	3.00	
velocity	7.16	8.50	8.12	7.76	7.46	7.10	6.94	6.65	7.42	7.78	7.94	7.28	6.79	7.86	7.03		
<b>Okumura, Yuri (JPN) (2000)</b> time	6.95	12.87	19.12	25.68	32.54	39.68	47.00	54.75	54.75	7 / 2							
reaction time 0.187 interval		5.92	6.25	6.56	6.86	7.14	7.32	7.75	# of strides	12.87	12.81	14.00	15.07	25.68	29.07	3.39	
velocity	7.19	8.45	8.00	7.62	7.29	7.00	6.83	6.45	7.31	7.77	7.81	7.14	6.64	7.79	6.88		
<b>Kuwabara, Ayako (JPN) (2001)</b> time	7.13	13.18	19.52	26.23	33.12	40.20	47.44	55.25	55.25	6 / 3							
reaction time 0.170 interval		6.05	6.34	6.71	6.89	7.08	7.24	7.81	# of strides	13.18	13.05	13.97	15.05	26.23	29.02	2.79	
velocity	7.01	8.26	7.89	7.45	7.26	7.06	6.91	6.40	7.24	7.59	7.66	7.16	6.64	7.62	6.89		
<b>Katayama, Shiori (JPN) (1996)</b> time	7.10	13.06	19.47	26.17	33.15	40.44	47.81	55.47	55.47	4 / 4							
reaction time 0.347 interval		5.96	6.41	6.70	6.98	7.29	7.37	7.66	# of strides	13.06	13.11	14.27	15.03	26.17	29.30	3.13	
velocity	7.04	8.39	7.80	7.46	7.16	6.86	6.78	6.53	7.21	7.66	7.63	7.01	6.65	7.64	6.83		



<b>Kawakami, Ichigo (JPN) (1999)</b>	time	7.00	13.00	19.27	25.85	32.81	40.14	47.66	55.72	55.72	8 / 5								
reaction time	0.209	6.00	6.27	6.58	6.96	7.33	7.52	8.06			# of strides	13.00	12.85	14.29	15.58	25.85	29.87	4.02	
velocity		7.14	8.33	7.97	7.60	7.18	6.82	6.65	6.20	7.18		7.69	7.78	7.00	6.42	7.74	6.70		
<b>Shiomi, Ayano (JPN) (1999)</b>	time	7.28	13.43	19.80	26.59	33.61	40.74	48.06	55.73	55.73	9 / 6								
reaction time	0.252	6.15	6.37	6.79	7.02	7.13	7.32	7.67			# of strides	13.43	13.16	14.15	14.99	26.59	29.14	2.55	
velocity		6.87	8.13	7.85	7.36	7.12	7.01	6.83	6.52	7.18		7.45	7.60	7.07	6.67	7.52	6.86		
<b>Nakajima, Sayaka (JPN) (1999)</b>	time	7.03	12.75	18.94	25.62	32.65	40.14	47.98	56.41	56.41	2 / 7								
reaction time	0.170	5.72	6.19	6.68	7.03	7.49	7.84	8.43			# of strides	12.75	12.87	14.52	16.27	25.62	30.79	5.17	
velocity		7.11	8.74	8.08	7.49	7.11	6.68	6.38	5.93	7.09		7.84	7.77	6.89	6.15	7.81	6.50		
<b>Minami, Chihiro (JPN) (2000)</b>	time	7.24	13.17	19.40	25.98	32.91	40.36	48.20	56.63	56.63	3 / 8								
reaction time	0.229	5.93	6.23	6.58	6.93	7.45	7.84	8.43			# of strides	13.17	12.81	14.38	16.27	25.98	30.65	4.67	
velocity		6.91	8.43	8.03	7.60	7.22	6.71	6.38	5.93	7.06		7.59	7.81	6.95	6.15	7.70	6.53		

## 2017 Meeting de Paris (Paris, FRA)

## FINAL

date 01-Jul-17

Omega Timing (2017) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Williams-Mills, Novlene (JAN)</b>	time		12.6	18.4	24.4	30.7	37.3	44.0	51.03	51.03	4 / 1							
reaction time	0.236			5.8	6.0	6.3	6.6	6.7	7.0		# of strides	12.60	11.80	12.90	13.73	24.40	26.63	2.23
velocity			7.94	8.62	8.33	7.94	7.58	7.46	7.11	7.84	200.2	7.94	8.47	7.75	7.28	8.20	7.51	
<b>Okolo, Courtney (USA) (1999)</b>	time		12.6	18.4	24.7	31.1	37.5	44.2	51.19	51.19	7 / 2							
reaction time	0.242			5.8	6.3	6.4	6.4	6.7	7.0		# of strides	12.60	12.10	12.80	13.69	24.70	26.49	1.79
velocity			7.94	8.62	7.94	7.81	7.81	7.46	7.15	7.81	191.7	7.94	8.26	7.81	7.30	8.10	7.55	
<b>Jackson, Shericka (JAM) (1999)</b>	time		12.5	18.3	24.4	30.9	37.6	44.6	51.91	51.91	5 / 3							
reaction time	0.182			5.8	6.1	6.5	6.7	7.0	7.3		# of strides	12.50	11.90	13.20	14.31	24.40	27.51	3.11
velocity			8.00	8.62	8.20	7.69	7.46	7.14	6.84	7.71	197.0	8.00	8.40	7.58	6.99	8.20	7.27	
<b>Jele, Lydia (BOT) (1990)</b>	time		12.7	18.7	24.9	31.2	37.7	44.5	51.96	51.96	8 / 4							
reaction time	0.161			6.0	6.2	6.3	6.5	6.8	7.5		# of strides	12.70	12.20	12.80	14.26	24.90	27.06	2.16
velocity			7.87	8.33	8.06	7.94	7.69	7.35	6.70	7.70	194.5	7.87	8.20	7.81	7.01	8.03	7.39	
<b>Guei, Floria (FRA) (1990)</b>	time		12.6	18.6	24.7	31.1	37.9	45.0	52.33	52.33	3 / 5							
reaction time	0.192			6.0	6.1	6.4	6.8	7.1	7.3		# of strides	12.60	12.10	13.20	14.43	24.70	27.63	2.93
velocity			7.94	8.33	8.20	7.81	7.35	7.04	6.82	7.64	192.5	7.94	8.26	7.58	6.93	8.10	7.24	
<b>Zemlyak, Olha (UKR) (1990)</b>	time		12.5	18.2	24.2	30.7	37.6	44.9	52.93	52.93	2 / 6							
reaction time	0.196			5.7	6.0	6.5	6.9	7.3	8.0		# of strides	12.50	11.70	13.40	15.33	24.20	28.73	4.53
velocity			8.00	8.77	8.33	7.69	7.25	6.85	6.23	7.56	DV	200.0	8.00	8.55	7.46	6.52	8.26	6.96
<b>Sananes, Deborah (FRA) (1999)</b>	time		12.8	18.8	25.1	31.6	38.5	45.8	53.41	53.41	1 / 6							
reaction time	0.207			6.0	6.3	6.5	6.9	7.3	7.6		# of strides	12.80	12.30	13.40	14.91	25.10	28.31	3.21
velocity			7.81	8.33	7.94	7.69	7.25	6.85	6.57	7.49	198.7	7.81	8.13	7.46	6.71	7.97	7.06	

## 2017 USATF National Championships (Sacramento, CA)

## FINAL

date 24-Jun-17

Lee (&amp; Ferrara) (2017) - speedendurance.com/2017/07/13/400m-splits-from-usa-national-championships/

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Hayes, Quanera (USA) (1992)</b>	time		12.20		23.89		36.14		49.72	49.72	7 / 1							
reaction time					11.69		12.25		13.58		# of strides	12.20	11.69	12.25	13.58	23.89	25.83	1.94
velocity			8.24		8.73		8.12		7.24	8.05		8.20	8.55	8.16	7.36	8.37	7.74	
<b>Francis, Phyllis (USA) (1992)</b>	time		12.23		23.44		36.13		49.96	49.96	4 / 2							
reaction time					11.21		12.69		13.83		# of strides	12.23	11.21	12.69	13.83	23.44	26.52	3.08
velocity			8.24		8.73		8.12		7.24	8.01		8.18	8.92	7.88	7.23	8.53	7.54	
<b>Ellis, Kendall (USA) (1996)</b>	time		12.39		23.92		36.37		50.00	50.00	6 / 3							
reaction time					11.53		12.45		13.63		# of strides	12.39	11.53	12.45	13.63	23.92	26.08	2.16
velocity			8.24		8.73		8.12		7.24	8.00		8.07	8.67	8.03	7.34	8.36	7.67	
<b>Hastings, Natasha (USA) (1999)</b>	time		11.83		23.19		35.92		50.14	50.14	3 / 4							
reaction time					11.36		12.73		14.22		# of strides	11.83	11.36	12.73	14.22	23.19	26.95	3.76
velocity			8.24		8.73		8.12		7.24	7.98		8.45	8.80	7.86	7.03	8.62	7.42	
<b>Wimbley, Shakima (USA) (1999)</b>	time		12.36		23.82		36.64		50.36	50.36	5 / 5							
reaction time					11.46		12.82		13.72		# of strides	12.36	11.46	12.82	13.72	23.82	26.54	2.72
velocity			8.24		8.73		8.12		7.24	7.94		8.09	8.73	7.80	7.29	8.40	7.54	
<b>Harper, Daina (USA) (1995)</b>	time		12.26		23.77		36.38		50.64	50.64	8 / 6							
reaction time					11.51		12.61		14.26		# of strides	12.26	11.51	12.61	14.26	23.77	26.87	3.10
velocity			8.24		8.73		8.12		7.24	7.90		8.16	8.69	7.93	7.01	8.41	7.44	
<b>Beard, Jessica (USA) (1989)</b>	time		12.43		23.99		36.88		50.85	50.85	2 / 7							
reaction time					11.56		12.89		13.97		# of strides	12.43	11.56	12.89	13.97	23.99	26.86	2.87
velocity			8.24		8.73		8.12		7.24	7.87		8.05	8.65	7.76	7.16	8.34	7.45	
<b>Okolo, Courtney (USA) (1999)</b>	time		12.67		24.29		36.92		51.23	51.23	1 / 8							
reaction time					11.62		12.63		14.31		# of strides	12.67	11.62	12.63	14.31	24.29	26.94	2.65
velocity			8.24		8.73		8.12		7.24	7.81		7.89	8.61	7.92	6.99	8.23	7.42	

## 2017 Japanese National Championships (Osaka, JPN)

## FINAL

date 24-Jun-17

Yamanaka (2017) - male and female 400m analysis in the 2017 season

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Iwata, Yuna (JPN) (1997)</b>	time		6.90	12.89	19.02	25.33	31.87	38.70	45.98	53.65	6 / 1							

reaction time	0.163	interval	5.99	6.13	6.31	6.54	6.83	7.28	7.67	<b>PB</b>	# of strides	12.89	12.44	13.37	14.95	25.33	28.32	2.99	
velocity	7.25		8.35	8.16	7.92	7.65	7.32	6.87	6.52	7.46		213.5	7.76	8.04	7.48	6.69	7.90	7.06	
<b>Takeishi, Konomi (JPN) (199)</b>	time	6.90	12.86	18.94	25.33	31.98	38.97	46.21	53.83	53.83	5 / 2								
reaction time	0.163	interval	5.96	6.08	6.39	6.65	6.99	7.24	7.62		# of strides	12.86	12.47	13.64	14.86	25.33	28.50	3.17	
velocity	7.25		8.39	8.22	7.82	7.52	7.15	6.91	6.56	7.43		194.7	7.78	8.02	7.33	6.73	7.90	7.02	
<b>Kawada, Ayaka (JPN) (1999)</b>	time	6.96	12.90	19.04	25.51	32.28	39.31	46.57	54.18	54.18	7 / 3								
reaction time	0.171	interval	5.94	6.14	6.47	6.77	7.03	7.26	7.61		# of strides	12.90	12.61	13.80	14.87	25.51	28.67	3.16	
velocity	7.18		8.42	8.14	7.73	7.39	7.11	6.89	6.57	7.38		214.0	7.75	7.93	7.25	6.72	7.84	6.98	
<b>Matsumoto, Nanako (JPN) (1999)</b>	time	7.08	13.15	19.37	25.85	32.55	39.65	46.92	54.72	54.72	8 / 4								
reaction time	0.180	interval	6.07	6.22	6.48	6.70	7.10	7.27	7.80		# of strides	13.15	12.70	13.80	15.07	25.85	28.87	3.02	
velocity	7.06		8.24	8.04	7.72	7.46	7.04	6.88	6.41	7.31		207.0	7.60	7.87	7.25	6.64	7.74	6.93	
<b>Aoki, Rin (JPN) (1998)</b>	time	7.11	13.36	19.65	26.11	32.75	39.82	47.16	54.85	54.85	3 / 5								
reaction time	0.180	interval	6.25	6.29	6.46	6.64	7.07	7.34	7.69		# of strides	13.36	12.75	13.71	15.03	26.11	28.74	2.63	
velocity	7.03		8.00	7.95	7.74	7.53	7.07	6.81	6.50	7.29		218.2	7.49	7.84	7.29	6.65	7.66	6.96	
<b>Aoyama, Seika (JPN) (1996)</b>	time	6.98	12.95	19.00	25.26	31.77	38.73	46.31	54.98	54.98	4 / 6								
reaction time	0.188	interval	5.97	6.05	6.26	6.51	6.96	7.58	8.67		# of strides	12.95	12.31	13.47	16.25	25.26	29.72	4.46	
velocity	7.16		8.38	8.26	7.99	7.68	7.18	6.60	5.77	7.28		210.2	7.72	8.12	7.42	6.15	7.92	6.73	
<b>Shintaku, Asami (JPN) (1994)</b>	time	7.25	13.56	20.07	26.70	33.41	40.35	47.66	55.59	55.59	9 / 7								
reaction time	0.146	interval	6.31	6.51	6.63	6.71	6.94	7.31	7.93		# of strides	13.56	13.14	13.65	15.24	26.70	28.89	2.19	
velocity	6.90		7.92	7.68	7.54	7.45	7.20	6.84	6.31	7.20		221.0	7.37	7.61	7.33	6.56	7.49	6.92	
<b>Shiiba, Kanako (JPN) (1997)</b>	time	7.19	13.39	19.74	26.33	33.15	40.37	48.02	56.20	56.20	2 / 8								
reaction time	0.229	interval	6.20	6.35	6.59	6.82	7.22	7.65	8.18		# of strides	13.39	12.94	14.04	15.83	26.33	29.87	3.54	
velocity	6.95		8.06	7.87	7.59	7.33	6.93	6.54	6.11	7.12		203.2	7.47	7.73	7.12	6.32	7.60	6.70	

## Heat 2

date 23-Jun-17

(2017) - tfdata-store.com/2017/07/10/post-978/

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Takeishi, Konomi (JPN) (199)</b>	time	12.74		25.00		38.65		53.47	53.47	5 / 1							
reaction time	0.165	interval		12.26		13.65		14.82	<b>PB</b>	# of strides	12.74	12.26	13.65	14.82	25.00	28.47	3.47
velocity	7.85		8.16		7.33		6.75	7.48	7.48		7.85	8.16	7.33	6.75	8.00	7.02	
<b>Aoyama, Seika (JPN) (1996)</b>	time	13.11		25.43		38.68		53.61	53.61	8 / 2							
reaction time	0.186	interval		12.32		13.25		14.93		# of strides	13.11	12.32	13.25	14.93	25.43	28.18	2.75
velocity	7.63		8.12		7.55		6.70	7.46	7.46		205.0	7.63	8.12	7.55	6.70	7.86	7.10
<b>Matsumoto, Nanako (JPN) (1999)</b>	time	13.10		25.47		38.98		54.23	54.23	3 / 3							
reaction time	0.187	interval		12.37		13.51		15.25		# of strides	13.10	12.37	13.51	15.25	25.47	28.76	3.29
velocity	7.63		8.08		7.40		6.56	7.38	7.38		206.0	7.63	8.08	7.40	6.56	7.85	6.95
<b>Shiiba, Kanako (JPN) (1997)</b>	time	13.58		26.41		39.95		54.69	54.69	6 / 4							
reaction time	interval		12.83		13.54		14.74			# of strides	13.58	12.83	13.54	14.74	26.41	28.28	1.87
velocity	7.36		7.79		7.39		6.78	7.31	7.31		198.5	7.36	7.79	7.39	6.78	7.57	7.07
<b>Hatano, Minami (JPN) (1998)</b>	time	13.05		25.33		39.17		55.04	55.04	4 / 5							
reaction time	0.146	interval		12.28		13.84		15.87		# of strides	13.05	12.28	13.84	15.87	25.33	29.71	4.38
velocity	7.66		8.14		7.23		6.30	7.27	7.27		206.0	7.66	8.14	7.23	6.30	7.90	6.73
<b>Uesugi, Haruna (JPN) (1998)</b>	time	13.01		25.52		39.85		56.07	56.07	2 / 6							
reaction time	0.175	interval		12.51		14.33		16.22		# of strides	13.01	12.51	14.33	16.22	25.52	30.55	5.03
velocity	7.69		7.99		6.98		6.17	7.13	7.13		208.7	7.69	7.99	6.98	6.17	7.84	6.55

## Heat 1

date 23-Jun-17

(2017) - tfdata-store.com/2017/07/10/post-978/

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Iwata, Yuna (JPN) (1997)</b>	time	12.94		25.45		39.11		53.82	53.82	5 / 1							
reaction time	0.173	interval		12.51		13.66		14.71		# of strides	12.94	12.51	13.66	14.71	25.45	28.37	2.92
velocity	7.73		7.99		7.32		6.80	7.43	7.43		212.2	7.73	7.99	7.32	6.80	7.86	7.05
<b>Kawada, Ayaka (JPN) (1999)</b>	time	12.85		25.40		39.20		54.37	54.37	6 / 2							
reaction time	0.174	interval		12.55		13.80		15.17		# of strides	12.85	12.55	13.80	15.17	25.40	28.97	3.57
velocity	7.78		7.97		7.25		6.59	7.36	7.36		213.2	7.78	7.97	7.25	6.59	7.87	6.90
<b>Shintaku, Asami (JPN) (1994)</b>	time	13.47		26.32		39.70		54.40	54.40	7 / 3							
reaction time	0.170	interval		12.85		13.38		14.70		# of strides	13.47	12.85	13.38	14.70	26.32	28.08	1.76
velocity	7.42		7.78		7.47		6.80	7.35	7.35		218.7	7.42	7.78	7.47	6.80	7.60	7.12
<b>Aoki, Rin (JPN) (1998)</b>	time	12.95		25.42		39.23		54.49	54.49	3 / 4							
reaction time	0.156	interval		12.47		13.81		15.26		# of strides	12.95	12.47	13.81	15.26	25.42	29.07	3.65
velocity	7.72		8.02		7.24		6.55	7.34	7.34		216.5	7.72	8.02	7.24	6.55	7.87	6.88
<b>Inaoka, Mayu (JPN) (1996)</b>	time	13.09		26.12		40.24		55.10	55.10	8 / 5							
reaction time	0.163	interval		13.03		14.12		14.86		# of strides	13.09	13.03	14.12	14.86	26.12	28.98	2.86
velocity	7.64		7.67		7.08		6.73	7.26	7.26		219.5	7.64	7.67	7.08	6.73	7.66	6.90

## 2017 NCAA Championships (Eugene, OR)

## FINAL

date 10-Jun-17

USTFCCCA (2017) - NCAA DI outdoor championship history

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Gordon, Chrisann (JAM) (19)</b>	time			23.6		36.6		50.5	50.51	4 / 1							
reaction time	interval			13.00		13.90		13.90		# of strides			13.00	13.90	23.60	26.90	3.30
velocity			8.47		7.69		7.19	7.92	7.92				7.69	7.19	8.47	7.43	
<b>Wimbley, Shakima (USA) (19)</b>	time			24.0		36.7		50.7	50.68	5 / 2							
reaction time	interval					12.70		14.00		# of strides			12.70	14.00	24.00	26.70	2.70

velocity	8.33	7.87	7.14	7.89	179.2	7.87	7.14	8.33	7.49	
<b>Ellis, Kendall (USA) (1996)</b> time	24.3	37.2	51.1	51.06	6 / 3					
reaction time interval		12.90	13.90		# of strides	12.90	13.90	24.30	26.80	2.50
velocity	8.23	7.75	7.19	7.83	188.7	7.75	7.19	8.23	7.46	

**2017 Luca Coscioni Memorial (Orvieto, ITA)****FINAL**

date 28-May-17

Tozzi (2017) - FIDAL - analisi gloria hooper, 25 maggio Orvieto

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Hooper, Gloria (ITA) (1992)</b> time	12.73	24.63	38.17	53.40	53.67	5 / 5											
reaction time interval		11.90	13.54	15.23		# of strides	12.73	11.90	13.54	15.23	24.63	28.77	4.14				
velocity	7.86	8.40	7.39	6.57	7.45	199	7.86	8.40	7.39	6.57	8.12	6.95					

**2017 Shimane High School Championships (Izumo, JPN)****FINAL**

date 26-May-17

Shimizu (2018) - shimane high school championships 2018 - biomechanics data analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Yuki Ishikawa (JPN)</b> time	13.57	27.23	42.40	58.12	58.12	4 / 1											
reaction time interval		13.66	15.17	15.72		# of strides	13.57	13.66	15.17	15.72	27.23	30.89	3.66				
velocity	7.37	7.32	6.59	6.36	6.88	7.37	7.32	6.59	6.36	7.34	6.47						
<b>Toya, Moenan (JPN)</b> time	13.90	27.77	43.10	59.21	59.21	7 / 2											
reaction time interval		13.87	15.33	16.11		# of strides	13.90	13.87	15.33	16.11	27.77	31.44	3.67				
velocity	7.19	7.21	6.52	6.21	6.76	7.19	7.21	6.52	6.21	7.20	6.36						
<b>Yoneda, Ryoha (JPN)</b> time	14.15	28.00	43.35	60.10	60.10	5 / 3											
reaction time interval		13.85	15.35	16.75		# of strides	14.15	13.85	15.35	16.75	28.00	32.10	4.10				
velocity	7.07	7.22	6.51	5.97	6.66	7.07	7.22	6.51	5.97	7.14	6.23						
<b>Ishikawa, Mahiro (JPN)</b> time	14.22	28.67	44.77	61.48	61.48	6 / 4											
reaction time interval		14.45	16.10	16.71		# of strides	14.22	14.45	16.10	16.71	28.67	32.81	4.14				
velocity	7.03	6.92	6.21	5.98	6.51	7.03	6.92	6.21	5.98	6.98	6.10						
<b>Inoue, Mai (JPN)</b> time	14.77	29.13	45.55	62.03	62.03	8 / 5											
reaction time interval		14.36	16.42	16.48		# of strides	14.77	14.36	16.42	16.48	29.13	32.90	3.77				
velocity	6.77	6.96	6.09	6.07	6.45	6.77	6.96	6.09	6.07	6.87	6.08						

**2017 Kanto Collegiate Championships (Yokohama, JPN)****Division 1 FINAL**

date 26-May-17

(2017) - tldata-store.com/2017/06/01/post-786/

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Iwata, Yuna (JPN) (1997)</b> time	13.14	25.90	39.75	54.36	54.36	7 / 1											
reaction time interval		12.76	13.85	14.61		# of strides	13.14	12.76	13.85	14.61	25.90	28.46	2.56				
velocity	7.61	7.84	7.22	6.84	7.36	214.2	7.61	7.84	7.22	6.84	7.72	7.03					
<b>Koyama, Kana (JPN) (1998)</b> time	13.57	26.58	40.41	54.82	54.82	4 / 2											
reaction time interval		13.01	13.83	14.41	<b>PB</b>	# of strides	13.57	13.01	13.83	14.41	26.58	28.24	1.66				
velocity	7.37	7.69	7.23	6.94	7.30	199.2	7.37	7.69	7.23	6.94	7.52	7.08					
<b>Sato, Hinako (JPN) (1996)</b> time	13.50	26.55	40.73	55.54	55.54	2 / 3											
reaction time interval		13.05	14.18	14.81		# of strides	13.50	13.05	14.18	14.81	26.55	28.99	2.44				
velocity	7.41	7.66	7.05	6.75	7.20	214.7	7.41	7.66	7.05	6.75	7.53	6.90					
<b>Hirosawa, Mae (JPN) (1997)</b> time	13.75	26.88	41.05	55.54	55.54	3 / 3											
reaction time interval		13.13	14.17	14.49	<b>PB</b>	# of strides	13.75	13.13	14.17	14.49	26.88	28.66	1.78				
velocity	7.27	7.62	7.06	6.90	7.20	199.5	7.27	7.62	7.06	6.90	7.44	6.98					
<b>Hosono, Maika (JPN) (1997)</b> time	13.89	26.92	40.93	55.59	55.59	5 / 5											
reaction time interval		13.03	14.01	14.66	<b>PB</b>	# of strides	13.89	13.03	14.01	14.66	26.92	28.67	1.75				
velocity	7.20	7.67	7.14	6.82	7.20	204.5	7.20	7.67	7.14	6.82	7.43	6.98					
<b>Hatano, Minami (JPN) (1998)</b> time	13.62	26.82	40.88	55.71	55.71	8 / 6											
reaction time interval		13.20	14.06	14.83		# of strides	13.62	13.20	14.06	14.83	26.82	28.89	2.07				
velocity	7.34	7.58	7.11	6.74	7.18	218.0	7.34	7.58	7.11	6.74	7.46	6.92					
<b>Matsumoto, Nanako (JPN) (1996)</b> time	13.79	26.88	41.06	55.97	55.97	9 / 7											
reaction time interval		13.09	14.18	14.91		# of strides	13.79	13.09	14.18	14.91	26.88	29.09	2.21				
velocity	7.25	7.64	7.05	6.71	7.15	208.5	7.25	7.64	7.05	6.71	7.44	6.88					
<b>Matsumoto, Chika (JPN) (1996)</b> time	13.84	27.38	41.75	56.49	56.49	6 / 8											
reaction time interval		13.54	14.37	14.74		# of strides	13.84	13.54	14.37	14.74	27.38	29.11	1.73				
velocity	7.23	7.39	6.96	6.78	7.08	103.7	7.23	7.39	6.96	6.78	7.30	6.87					

**Division 1 Semi-Fi**

date 26-May-17

(2017) - tldata-store.com/2017/06/02/post-835/

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Iwata, Yuna (JPN) (1997)</b> time	13.09	26.02	40.23	55.42	55.42	4 / 1											
reaction time interval		12.93	14.21	15.19		# of strides	13.09	12.93	14.21	15.19	26.02	29.40	3.38				
velocity	7.64	7.73	7.04	6.58	7.22	212.5	7.64	7.73	7.04	6.58	7.69	6.80					
<b>Hosono, Maika (JPN) (1997)</b> time	13.70	26.60	40.53	55.68	55.68	7 / 2											
reaction time interval		12.90	13.93	15.15	<b>PB</b>	# of strides	13.70	12.90	13.93	15.15	26.60	29.08	2.48				
velocity	7.30	7.75	7.18	6.60	7.18	205.0	7.30	7.75	7.18	6.60	7.52	6.88					
<b>Hatano, Minami (JPN) (1998)</b> time	13.51	26.57	40.76	55.93	55.93	6 / 3											
reaction time interval		13.06	14.19	15.17		# of strides	13.51	13.06	14.19	15.17	26.57	29.36	2.79				
velocity	7.40	7.66	7.05	6.59	7.15	207.5	7.40	7.66	7.05	6.59	7.53	6.81					
<b>Sato, Hinako (JPN) (1996)</b> time	13.62	26.82	40.88	56.11	56.11	5 / 4											
reaction time interval		13.20	14.06	15.23		# of strides	13.62	13.20	14.06	15.23	26.82	29.29	2.47				



velocity	7.34	7.58	7.11	6.57	7.13	214.0	7.34	7.58	7.11	6.57	7.46	6.83	
<b>Yakushiji, Mana (JPN) (1995)</b> time	13.16	26.31	40.91	56.50	56.50	8 / 5							
reaction time interval		13.15	14.60	15.59		# of strides	13.16	13.15	14.60	15.59	26.31	30.19	3.88
velocity	7.60	7.60	6.85	6.41	7.08	209.5	7.60	7.60	6.85	6.41	7.60	6.62	
<b>Fujii, Ayano (JPN) (1998)</b> time	13.22	26.24	40.78	56.60	56.60	3 / 6							
reaction time interval		13.02	14.54	15.82		# of strides	13.22	13.02	14.54	15.82	26.24	30.36	4.12
velocity	7.56	7.68	6.88	6.32	7.07	207.5	7.56	7.68	6.88	6.32	7.62	6.59	
<b>Ikezaki, Airi (JPN) (1998)</b> time	13.36	26.58	41.48	57.67	57.67	2 / 7							
reaction time interval		13.22	14.90	16.19		# of strides	13.36	13.22	14.90	16.19	26.58	31.09	4.51
velocity	7.49	7.56	6.71	6.18	6.94	221.2	7.49	7.56	6.71	6.18	7.52	6.43	
<b>Yoshida, Kasumi (JPN) (1995)</b> time	13.41	26.70	41.73	58.39	58.39	9 / 8							
reaction time interval		13.29	15.03	16.66		# of strides	13.41	13.29	15.03	16.66	26.70	31.69	4.99
velocity	7.46	7.52	6.65	6.00	6.85	223.7	7.46	7.52	6.65	6.00	7.49	6.31	

## Division 1 Semi-Fi date 26-May-17

(2017) - [tdata-store.com/2017/06/02/post-835/](http://tdata-store.com/2017/06/02/post-835/)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Koyama, Kana (JPN) (1998)</b> time	13.57	26.61	40.75	55.55	55.55	7 / 1											
reaction time interval		13.04	14.14	14.80		# of strides	13.57	13.04	14.14	14.80	26.61	28.94	2.33				
velocity	7.37	7.67	7.07	6.76	7.20	197.0	7.37	7.67	7.07	6.76	7.52	6.91					
<b>Matsumoto, Chika (JPN) (1995)</b> time	13.77	27.32	41.68	56.13	56.13	6 / 2											
reaction time interval		13.55	14.36	14.45		# of strides	13.77	13.55	14.36	14.45	27.32	28.81	1.49				
velocity	7.26	7.38	6.96	6.92	7.13	205.7	7.26	7.38	6.96	6.92	7.32	6.94					
<b>Matsumoto, Nanako (JPN) (1995)</b> time	13.59	26.49	40.64	56.22	56.22	9 / 3											
reaction time interval		12.90	14.15	15.58		# of strides	13.59	12.90	14.15	15.58	26.49	29.73	3.24				
velocity	7.36	7.75	7.07	6.42	7.11	210.0	7.36	7.75	7.07	6.42	7.55	6.73					
<b>Hirosawa, Mae (JPN) (1997)</b> time	13.47	26.78	41.33	56.35	56.35	4 / 4											
reaction time interval		13.31	14.55	15.02		# of strides	13.47	13.31	14.55	15.02	26.78	29.57	2.79				
velocity	7.42	7.51	6.87	6.66	7.10	199.5	7.42	7.51	6.87	6.66	7.47	6.76					
<b>Sugiura, Haruka (JPN) (1995)</b> time	13.13	26.10	40.75	56.41	56.41	3 / 5											
reaction time interval		12.97	14.65	15.66		# of strides	13.13	12.97	14.65	15.66	26.10	30.31	4.21				
velocity	7.62	7.71	6.83	6.39	7.09	212.0	7.62	7.71	6.83	6.39	7.66	6.60					
<b>Mito, Yuriko (JPN) (1995)</b> time	13.80	27.11	41.31	56.69	56.69	8 / 6											
reaction time interval		13.31	14.20	15.38		# of strides	13.80	13.31	14.20	15.38	27.11	29.58	2.47				
velocity	7.25	7.51	7.04	6.50	7.06	201.2	7.25	7.51	7.04	6.50	7.38	6.76					
<b>Fukushima, Miyuki (JPN) (1995)</b> time	13.39	26.68	41.21	56.71	56.71	2 / 7											
reaction time interval		13.29	14.53	15.50	PB	# of strides	13.39	13.29	14.53	15.50	26.68	30.03	3.35				
velocity	7.47	7.52	6.88	6.45	7.05	210.0	7.47	7.52	6.88	6.45	7.50	6.66					
<b>Itani, Kanna (JPN) (1997)</b> time	13.79	27.28	41.85	57.75	57.75	5 / 8											
reaction time interval		13.49	14.57	15.90		# of strides	13.79	13.49	14.57	15.90	27.28	30.47	3.19				
velocity	7.25	7.41	6.86	6.29	6.93	219.0	7.25	7.41	6.86	6.29	7.33	6.56					

## 2017 Kansai Regional University Championships (Osaka, JPN)

## FINAL

date 11-May-17

(2017) - [tdata-store.com/2017/05/13/post-441/](http://tdata-store.com/2017/05/13/post-441/)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Aoyama, Seika (JPN) (1996)</b> time	12.79	24.79	37.89	53.03	53.03	7 / 1											
reaction time interval		12.00	13.10	15.14		# of strides	12.79	12.00	13.10	15.14	24.79	28.24	3.45				
velocity	7.82	8.33	7.63	6.61	7.54		7.82	8.33	7.63	6.61	8.07	7.08					
<b>Inaoka, Maya (JPN) (1996)</b> time	13.04	25.49	39.23	54.65	54.65	5 / 2											
reaction time interval		12.45	13.74	15.42	PB	# of strides	13.04	12.45	13.74	15.42	25.49	29.16	3.67				
velocity	7.67	8.03	7.28	6.49	7.32		7.67	8.03	7.28	6.49	7.85	6.86					
<b>Shibata, Chiharu (JPN) (1997)</b> time	13.69	26.65	40.11	55.26	55.26	6 / 3											
reaction time interval		12.96	13.46	15.15		# of strides	13.69	12.96	13.46	15.15	26.65	28.61	1.96				
velocity	7.30	7.72	7.43	6.60	7.24		7.30	7.72	7.43	6.60	7.50	6.99					
<b>Kimoto, Ayana (JPN) (1996)</b> time	13.59			55.43	55.43	8 / 4											
reaction time interval				41.84		# of strides	13.59										
velocity	7.36			7.17	7.22		7.36										
<b>Uesugi, Haruna (JPN) (1998)</b> time	13.03	25.55	39.66	55.52	55.52	4 / 5											
reaction time interval		12.52	14.11	15.86		# of strides	13.03	12.52	14.11	15.86	25.55	29.97	4.42				
velocity	7.67	7.99	7.09	6.31	7.20		7.67	7.99	7.09	6.31	7.83	6.67					
<b>Hosuyuyama, Shiori (JPN)</b> time	13.05	25.78	39.78	55.64	55.64	2 / 6											
reaction time interval		12.73	14.00	15.86		# of strides	13.05	12.73	14.00	15.86	25.78	29.86	4.08				
velocity	7.66	7.86	7.14	6.31	7.19		7.66	7.86	7.14	6.31	7.76	6.70					
<b>Tsumagari, Ako (JPN) (1995)</b> time	14.15			55.79	55.79	9 / 7											
reaction time interval				41.64		# of strides	14.15										
velocity	7.07			7.20	7.17		7.07										
<b>Nishida, Mina (JPN) (1998)</b> time	13.29	25.76	39.86	56.14	56.14	3 / 8											
reaction time interval		12.47	14.10	16.28		# of strides	13.29	12.47	14.10	16.28	25.76	30.38	4.62				
velocity	7.52	8.02	7.09	6.14	7.13		7.52	8.02	7.09	6.14	7.76	6.58					

## 2017 Shizuoka International Meeting (Fukuroi, JPN)

## FINAL

date 03-May-17

Yamanaka (2017) - male and female 400m analysis in the 2017 season

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Aoyama, Seika (JPN) (1996)</b> time	6.84	12.62	18.67	24.96	31.66	38.80	46.37	54.50	54.50	/ 1							
reaction time interval		5.78	6.05	6.29	6.70	7.14	7.57	8.13		# of strides	12.62	12.34	13.84	15.70	24.96	29.54	4.58
velocity	7.31	8.65	8.26	7.95	7.46	7.00	6.61	6.15	7.34		7.92	8.10	7.23	6.37	8.01	6.77	
<b>Iwata, Yuna (JPN) (1997)</b> time	7.14	13.21	19.44	25.84	32.63	39.69	47.00	54.53	54.53	/ 2							
reaction time interval		6.07	6.23	6.40	6.79	7.06	7.31	7.53		# of strides	13.21	12.63	13.85	14.84	25.84	28.69	2.85
velocity	7.00	8.24	8.03	7.81	7.36	7.08	6.84	6.64	7.34		7.57	7.92	7.22	6.74	7.74	6.97	
<b>Aoki, Rin (JPN) (1998)</b> time	7.02	12.91	19.04	25.50	32.40	39.48	46.89	54.83	54.83	/ 3							
reaction time interval		5.89	6.13	6.46	6.90	7.08	7.41	7.94		# of strides	12.91	12.59	13.98	15.35	25.50	29.33	3.83
velocity	7.12	8.49	8.16	7.74	7.25	7.06	6.75	6.30	7.30		7.75	7.94	7.15	6.51	7.84	6.82	
<b>Matsumoto, Nanako (JPN) (1998)</b> time	7.18	13.17	19.39	25.87	32.74	39.89	47.30	55.31	55.31	/ 4							
reaction time interval		5.99	6.22	6.48	6.87	7.15	7.41	8.01		# of strides	13.17	12.70	14.02	15.42	25.87	29.44	3.57
velocity	6.96	8.35	8.04	7.72	7.28	6.99	6.75	6.24	7.23		7.59	7.87	7.13	6.49	7.73	6.79	
<b>Takeishi, Konomi (JPN) (1999)</b> time	6.90	12.85	19.17	25.85	32.86	40.04	47.43	55.34	55.34	/ 5							
reaction time interval		5.95	6.32	6.68	7.01	7.18	7.39	7.91		# of strides	12.85	13.00	14.19	15.30	25.85	29.49	3.64
velocity	7.25	8.40	7.91	7.49	7.13	6.96	6.77	6.32	7.23		7.78	7.69	7.05	6.54	7.74	6.78	
<b>Kashiyama, Kaede (JPN) (1999)</b> time	7.05	13.02	19.27	25.77	32.71	40.05	47.92	56.57	56.57	/ 6							
reaction time interval		5.97	6.25	6.50	6.94	7.34	7.87	8.65		# of strides	13.02	12.75	14.28	16.52	25.77	30.80	5.03
velocity	7.09	8.38	8.00	7.69	7.20	6.81	6.35	5.78	7.07		7.68	7.84	7.00	6.05	7.76	6.49	

## B FINAL

date 03-May-17

Yamanaka (2017) - male and female 400m analysis in the 2017 season

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Kawada, Ayaka (JPN) (1999)</b> time	7.05	13.08	19.34	25.95	32.71	39.76	47.15	54.67	54.67	/ 1							
reaction time interval		6.03	6.26	6.61	6.76	7.05	7.39	7.52	PB	# of strides	13.08	12.87	13.81	14.91	25.95	28.72	2.77
velocity	7.09	8.29	7.99	7.56	7.40	7.09	6.77	6.65	7.32		7.65	7.77	7.24	6.71	7.71	6.96	
<b>Shintaku, Asami (JPN) (1994)</b> time	7.02	13.06	19.27	25.77	32.36	39.27	46.81	55.07	55.07	/ 2							
reaction time interval		6.04	6.21	6.50	6.59	6.91	7.54	8.26		# of strides	13.06	12.71	13.50	15.80	25.77	29.30	3.53
velocity	7.12	8.28	8.05	7.69	7.59	7.24	6.63	6.05	7.26		7.66	7.87	7.41	6.33	7.76	6.83	

## 2017 Izumo Athletics Games (Izumo, JPN) (300m)

## FINAL

date 23-Apr-17

(2017) - tfdata-store.com/2017/05/17/post-537/

	50m	100m	150m	200m	250m	300m	Official Time	Lane / Place	0-100m	100-200m	200-300m	0-200m	Differential
<b>Aoyama, Seika (JPN) (1996)</b> time	12.39			24.32		37.76	37.76	6 / 1					
reaction time interval				11.93		13.44	PB	# of strides	12.39	11.93	13.44	24.32	25.37
velocity	8.07			8.38		7.44	7.94	153.0	8.07	8.38	7.44	8.22	7.88
<b>Fujisawa, Sayaka (JPN) (1991)</b> time	12.29			24.25		38.09	38.09	4 / 2					
reaction time interval				11.96		13.84	PB	# of strides	12.29	11.96	13.84	24.25	25.80
velocity	8.14			8.36		7.23	7.88	151.7	8.14	8.36	7.23	8.25	7.75
<b>Aoki, Rin (JPN) (1998)</b> time	12.69			24.82		38.47	38.47	5 / 3					
reaction time interval				12.13		13.65	PB	# of strides	12.69	12.13	13.65	24.82	25.78
velocity	7.88			8.24		7.33	7.80	162.2	7.88	8.24	7.33	8.06	7.76
<b>Takeishi, Konomi (JPN) (1999)</b> time	12.42			24.87		38.96	38.96	3 / 4					
reaction time interval				12.45		14.09		# of strides	12.42	12.45	14.09	24.87	26.54
velocity	8.05			8.03		7.10	7.70	149.5	8.05	8.03	7.10	8.04	7.54
<b>Fujii, Ayano (JPN) (1998)</b> time	12.89			25.47		39.54	39.54	8 / 5					
reaction time interval				12.58		14.07	PB	# of strides	12.89	12.58	14.07	25.47	26.65
velocity	7.76			7.95		7.11	7.59	152.0	7.76	7.95	7.11	7.85	7.50
<b>Uesugi, Haruna (JPN) (1998)</b> time	12.99			25.77		39.98	39.98	7 / 6					
reaction time interval				12.78		14.21	PB	# of strides	12.99	12.78	14.21	25.77	26.99
velocity	7.70			7.82		7.04	7.50	156.5	7.70	7.82	7.04	7.76	7.41
<b>Ishikawa, Kimishia (JPN)</b> time	12.93			25.72		40.03	40.03	2 / 7					
reaction time interval				12.79		14.31		# of strides	12.93	12.79	14.31	25.72	27.10
velocity	7.73			7.82		6.99	7.49	163.0	7.73	7.82	6.99	7.78	7.38
<b>Shibayama, Sayaka (JPN) (1999)</b> time	12.56			25.11		40.10	40.10	9 / 8					
reaction time interval				12.55		14.99		# of strides	12.56	12.55	14.99	25.11	27.54
velocity	7.96			7.97		6.67	7.48	154.7	7.96	7.97	6.67	7.96	7.26
<b>Umehara, Satsuki (JPN) (1999)</b> time	13.35			26.28		40.52	40.52	1 / 9					
reaction time interval				12.93		14.24		# of strides	13.35	12.93	14.24	26.28	27.17
velocity	7.49			7.73		7.02	7.40	157.0	7.49	7.73	7.02	7.61	7.36

## 2017 Osaka University Athletics Championships (Osaka, JPN)

## FINAL

date 06-Apr-17

(2017) - tfdata-store.com/2017/04/07/post-249/

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Uesugi, Haruna (JPN) (1998)</b> time	13.15			25.86		40.24		56.78	56.78	7 / 1							
reaction time interval				12.71		14.38		16.54		# of strides	13.15	12.71	14.38	16.54	25.86	30.92	5.06
velocity	7.60			7.87		6.95		6.05	7.04		7.60	7.87	6.95	6.05	7.73	6.47	
<b>Shimaoka, Masami (JPN)</b> time	13.40			26.43		40.91		57.17	57.17	4 / 2							
reaction time interval				13.03		14.48		16.26		# of strides	13.40	13.03	14.48	16.26	26.43	30.74	4.31
velocity	7.46			7.67		6.91		6.15	7.00		7.46	7.67	6.91	6.15	7.57	6.51	
<b>Nakajima, Aiharu (JPN)</b> time	12.90			25.41		39.97		57.20	57.20	5 / 3							

reaction time	interval		12.51	14.56	17.23		# of strides	12.90	12.51	14.56	17.23	25.41	31.79	6.38
	velocity	7.75	7.99	6.87	5.80	6.99	210.7	7.75	7.99	6.87	5.80	7.87	6.29	
<b>Nakamura, Mayumi (JPN)</b>	time	13.91	27.58	42.34	58.70	58.70	6 / 4							
reaction time	interval		13.67	14.76	16.36		# of strides	13.91	13.67	14.76	16.36	27.58	31.12	3.54
	velocity	7.19	7.32	6.78	6.11	6.81		7.19	7.32	6.78	6.11	7.25	6.43	
<b>Iyo, Maeda (JPN)</b>	time	14.10	27.83	42.74	58.83	58.83	3 / 5							
reaction time	interval		13.73	14.91	16.09		# of strides	14.10	13.73	14.91	16.09	27.83	31.00	3.17
	velocity	7.09	7.28	6.71	6.22	6.80		7.09	7.28	6.71	6.22	7.19	6.45	
<b>Mori, Ayano (JPN) (1995)</b>	time	13.93	27.73		59.14	59.14	9 / 6							
reaction time	interval		13.80		31.41		# of strides	13.93	13.80			27.73	31.41	3.68
	velocity	7.18	7.25		6.37	6.76		7.18	7.25			7.21	6.37	
<b>Tsuji, Mio (JPN) (2000)</b>	time	14.63	29.01		61.26	61.26	8 / 8							
reaction time	interval		14.38		32.25		# of strides	14.63	14.38			29.01	32.25	3.24
	velocity	6.84	6.95		6.20	6.53		6.84	6.95			6.89	6.20	

## 2016 Japanese National Junior Championships (Mizuho, JPN)

## FINAL

date 21-Oct-16

Yamamoto (2016) - race analysis of male &amp; female 400m runners at major competitions in 2016

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Hatano, Minami (JPN) (1998)</b>	time	7.07	13.08	19.25	25.59	32.21	39.43	46.85	54.72	54.72	3 / 1							
reaction time	interval		6.01	6.17	6.34	6.62	7.22	7.42	7.87		# of strides	13.08	12.51	13.84	15.29	25.59	29.13	3.54
	velocity	7.07	8.32	8.10	7.89	7.55	6.93	6.74	6.35	7.31		7.65	7.99	7.23	6.54	7.82	6.87	
<b>Shiyya, Kanako (JPN) (1997)</b>	time	7.29	13.52	19.95	26.61	33.43	40.39	47.53	54.99	54.99	4 / 2							
reaction time	interval		6.23	6.43	6.66	6.82	6.96	7.14	7.46		# of strides	13.52	13.09	13.78	14.60	26.61	28.38	1.77
	velocity	6.86	8.03	7.78	7.51	7.33	7.18	7.00	6.70	7.27		7.40	7.64	7.26	6.85	7.52	7.05	
<b>Ishizuka, Haruko (JPN) (1997)</b>	time	7.02	13.00	19.15	25.71	32.60	39.73	47.19	55.01	55.01	6 / 3							
reaction time	interval		5.98	6.15	6.56	6.89	7.13	7.46	7.82		# of strides	13.00	12.71	14.02	15.28	25.71	29.30	3.59
	velocity	7.12	8.36	8.13	7.62	7.26	7.01	6.70	6.39	7.27		7.69	7.87	7.13	6.54	7.78	6.83	
<b>Shibata, Mie (JPN) (1998)</b>	time	7.14	13.25	19.60	26.25	33.14	40.31	47.83	55.52	55.52	8 / 4							
reaction time	interval		6.11	6.35	6.65	6.89	7.17	7.52	7.69		# of strides	13.25	13.00	14.06	15.21	26.25	29.27	3.02
	velocity	7.00	8.18	7.87	7.52	7.26	6.97	6.65	6.50	7.20		7.55	7.69	7.11	6.57	7.62	6.83	
<b>Shiomi, Ayano (JPN) (1999)</b>	time	7.32	13.50	19.89	26.58	33.55	40.80	48.30	56.04	56.04	2 / 5							
reaction time	interval		6.18	6.39	6.69	6.97	7.25	7.50	7.74		# of strides	13.50	13.08	14.22	15.24	26.58	29.46	2.88
	velocity	6.83	8.09	7.82	7.47	7.17	6.90	6.67	6.46	7.14		7.41	7.65	7.03	6.56	7.52	6.79	
<b>Nakamura, Miku (JPN) (1998)</b>	time	7.33	13.74	20.29	27.05	34.07	41.21	48.55	56.06	56.06	5 / 6							
reaction time	interval		6.41	6.55	6.76	7.02	7.14	7.34	7.51		# of strides	13.74	13.31	14.16	14.85	27.05	29.01	1.96
	velocity	6.82	7.80	7.63	7.40	7.12	7.00	6.81	6.66	7.14		7.28	7.51	7.06	6.73	7.39	6.89	
<b>Matsumoto, Fuya (JPN) (1999)</b>	time	7.33	13.54	20.00	26.82	33.96	41.33	48.82	56.64	56.64	1 / 7							
reaction time	interval		6.21	6.46	6.82	7.14	7.37	7.49	7.82		# of strides	13.54	13.28	14.51	15.31	26.82	29.82	3.00
	velocity	6.82	8.05	7.74	7.33	7.00	6.78	6.68	6.39	7.06		7.39	7.53	6.89	6.53	7.46	6.71	
<b>Nakajima, Airi (JPN) (1997)</b>	time	7.27	13.30	19.54	26.10	33.08	40.48	48.56	57.33	57.33	7 / 8							
reaction time	interval		6.03	6.24	6.56	6.98	7.40	8.08	8.77		# of strides	13.30	12.80	14.38	16.85	26.10	31.23	5.13
	velocity	6.88	8.29	8.01	7.62	7.16	6.76	6.19	5.70	6.98		7.52	7.81	6.95	5.93	7.66	6.40	

## 2016 Japanese National Youth Championships (Mizuho, JPN)

## FINAL

date 21-Oct-16

Yamamoto (2016) - race analysis of male &amp; female 400m runners at major competitions in 2016

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Kawada, Ayaka (JPN) (1999)</b>	time	7.11	13.09	19.42	26.04	32.85	39.89	47.24	54.93	54.93	4 / 1							
reaction time	interval		5.98	6.33	6.62	6.81	7.04	7.35	7.69		# of strides	13.09	12.95	13.85	15.04	26.04	28.89	2.85
	velocity	7.03	8.36	7.90	7.55	7.34	7.10	6.80	6.50	7.28		7.64	7.72	7.22	6.65	7.68	6.92	
<b>Kawakami, Ichigo (JPN) (1999)</b>	time	7.01	13.13	19.42	26.11	33.22	40.42	47.86	55.77	55.77	2 / 2							
reaction time	interval		6.12	6.29	6.69	7.11	7.20	7.44	7.91		# of strides	13.13	12.98	14.31	15.35	26.11	29.66	3.55
	velocity	7.13	8.17	7.95	7.47	7.03	6.94	6.72	6.32	7.17		7.62	7.70	6.99	6.51	7.66	6.74	
<b>Matsuo, Kina (JPN) (2000)</b>	time	7.35	13.56	19.94	26.71	33.71	40.90	48.13	55.86	55.86	3 / 3							
reaction time	interval		6.21	6.38	6.77	7.00	7.19	7.23	7.73		# of strides	13.56	13.15	14.19	14.96	26.71	29.15	2.44
	velocity	6.80	8.05	7.84	7.39	7.14	6.95	6.92	6.47	7.16		7.37	7.60	7.05	6.68	7.49	6.86	
<b>Isoke, Mami (JPN) (1999)</b>	time	7.38	13.66	20.12	26.79	33.71	40.86	48.21	55.96	55.96	5 / 4							
reaction time	interval		6.28	6.46	6.67	6.92	7.15	7.35	7.75		# of strides	13.66	13.13	14.07	15.10	26.79	29.17	2.38
	velocity	6.78	7.96	7.74	7.50	7.23	6.99	6.80	6.45	7.15		7.32	7.62	7.11	6.62	7.47	6.86	
<b>Onoue, Rika (JPN) (1999)</b>	time	7.32	13.64	20.15	26.88	33.77	40.83	48.21	56.17	56.17	8 / 5							
reaction time	interval		6.32	6.51	6.73	6.89	7.06	7.38	7.96		# of strides	13.64	13.24	13.95	15.34	26.88	29.29	2.41
	velocity	6.83	7.91	7.68	7.43	7.26	7.08	6.78	6.28	7.12		7.33	7.55	7.17	6.52	7.44	6.83	
<b>Iwata, Mebuki (JPN) (1999)</b>	time	7.11	13.31	19.85	26.73	33.81	40.92	48.32	56.34	56.34	6 / 6							
reaction time	interval		6.20	6.54	6.88	7.08	7.11	7.40	8.02		# of strides	13.31	13.42	14.19	15.42	26.73	29.61	2.88
	velocity	7.03	8.06	7.65	7.27	7.06	7.03	6.76	6.23	7.10		7.51	7.45	7.05	6.49	7.48	6.75	
<b>Kato, Shiho (JPN) (2000)</b>	time	7.07	13.19	19.64	26.51	33.68	40.98	48.46	56.37	56.37	7 / 7							
reaction time	interval		6.12	6.45	6.87	7.17	7.30	7.48	7.91		# of strides	13.19	13.32	14.47	15.39	26.51	29.86	3.35
	velocity	7.07	8.17	7.75	7.28	6.97	6.85	6.68	6.32	7.10		7.58	7.51	6.91	6.50	7.54	6.70	
<b>Karuyama, Yakari (JPN)</b>	time	7.19	13.40	19.99	26.96	34.32	42.13	50.52	59.55	59.55	1 / 8							
reaction time	interval		6.21	6.59	6.97	7.36	7.81	8.39	9.03		# of strides	13.40	13.56	15.17	17.42	26.96	32.59	5.63
	velocity	6.95	8.05	7.59	7.17	6.79	6.40	5.96	5.54	6.72		7.46	7.37	6.59	5.74	7.42	6.14	



## 2016 National Sports Festival (Kitakami, JPN)

## U19 FINAL

date 10-Oct-16

Yamamoto (2016) - race analysis of male &amp; female 400m runners at major competitions in 2016

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Aoki, Rin (JPN) (1998)	time	6.97	12.93	19.09	25.78	32.72	39.73	46.97	54.67	54.67	7 / 1							
	reaction time 0.175	interval	5.96	6.16	6.69	6.94	7.01	7.24	7.70		# of strides	12.93	12.85	13.95	14.94	25.78	28.89	3.11
	velocity	7.17	8.39	8.12	7.47	7.20	7.13	6.91	6.49	7.32		7.73	7.78	7.17	6.69	7.76	6.92	
Shimada, Yukina (JPN) (1998)	time	6.83	12.72	18.85	25.39	32.28	39.48	47.04	54.82	54.82	4 / 2							
	reaction time 0.215	interval	5.89	6.13	6.54	6.89	7.20	7.56	7.78		# of strides	12.72	12.67	14.09	15.34	25.39	29.43	4.04
	velocity	7.32	8.49	8.16	7.65	7.26	6.94	6.61	6.43	7.30		7.86	7.89	7.10	6.52	7.88	6.80	
Hatano, Minami (JPN) (1998)	time	7.08	13.04	19.19	25.67	32.48	39.61	47.06	55.10	55.10	6 / 3							
	reaction time 0.204	interval	5.96	6.15	6.48	6.81	7.13	7.45	8.04		# of strides	13.04	12.63	13.94	15.49	25.67	29.43	3.76
	velocity	7.06	8.39	8.13	7.72	7.34	7.01	6.71	6.22	7.26		7.67	7.92	7.17	6.46	7.79	6.80	
Saito, Ami (JPN) (1999)	time	6.97	13.03	19.34	26.10	33.01	40.17	47.57	55.55	55.55	9 / 4							
	reaction time 0.198	interval	6.06	6.31	6.76	6.91	7.16	7.40	7.98		# of strides	13.03	13.07	14.07	15.38	26.10	29.45	3.35
	velocity	7.17	8.25	7.92	7.40	7.24	6.98	6.76	6.27	7.20		7.67	7.65	7.11	6.50	7.66	6.79	
Uesugi, Haruna (JPN) (1998)	time	6.98	12.93	19.24	26.00	33.13	40.48	48.04	56.00	56.00	5 / 5							
	reaction time 0.202	interval	5.95	6.31	6.76	7.13	7.35	7.56	7.96		# of strides	12.93	13.07	14.48	15.52	26.00	30.00	4.00
	0.167	velocity	7.16	8.40	7.92	7.40	7.01	6.80	6.61	6.28	7.14		7.73	7.65	6.91	6.44	7.69	6.67
Ikezaki, Airi (JPN) (1998)	time	7.27	13.30	19.54	26.26	33.14	40.47	48.06	56.22	56.22	2 / 6							
	reaction time 0.236	interval	6.03	6.24	6.72	6.88	7.33	7.59	8.16		# of strides	13.30	12.96	14.21	15.75	26.26	29.96	3.70
	velocity	6.88	8.29	8.01	7.44	7.27	6.82	6.59	6.13	7.11		7.52	7.72	7.04	6.35	7.62	6.68	
Kato, Shiho (JPN) (2000)	time	7.13	13.11	19.47	26.30	33.40	40.70	48.40	56.76	56.76	3 / 7							
	reaction time 0.194	interval	5.98	6.36	6.83	7.10	7.30	7.70	8.36		# of strides	13.11	13.19	14.40	16.06	26.30	30.46	4.16
	velocity	7.01	8.36	7.86	7.32	7.04	6.85	6.49	5.98	7.05		7.63	7.58	6.94	6.23	7.60	6.57	
Shibata, Mie (JPN) (1998)	time	7.13	13.27	19.65	26.49	33.60	40.97	48.72	56.95	56.95	8 / 8							
	reaction time 0.189	interval	6.14	6.38	6.84	7.11	7.37	7.75	8.23		# of strides	13.27	13.22	14.48	15.98	26.49	30.46	3.97
	velocity	7.01	8.14	7.84	7.31	7.03	6.78	6.45	6.08	7.02		7.54	7.56	6.91	6.26	7.55	6.57	

## FINAL

date 09-Oct-16

Yamamoto (2016) - race analysis of male &amp; female 400m runners at major competitions in 2016

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Aoyama, Seika (JPN) (1996)	time	6.90	12.76	18.79	25.11	31.73	38.75	46.17	54.35	54.35	5 / 1							
	reaction time 0.247	interval	5.86	6.03	6.32	6.62	7.02	7.42	8.18		# of strides	12.76	12.35	13.64	15.60	25.11	29.24	4.13
	velocity	7.25	8.53	8.29	7.91	7.55	7.12	6.74	6.11	7.36		7.84	8.10	7.33	6.41	7.96	6.84	
Takeishi, Konomi (JPN) (199)	time	6.95	13.05	19.37	26.01	32.95	40.05	47.34	54.93	54.93	4 / 2							
	reaction time 0.200	interval	6.10	6.32	6.64	6.94	7.10	7.29	7.59		# of strides	13.05	12.96	14.04	14.88	26.01	28.92	2.91
	velocity	7.19	8.20	7.91	7.53	7.20	7.04	6.86	6.59	7.28		7.66	7.72	7.12	6.72	7.69	6.92	
Matsumoto, Nanako (JPN) (199)	time	7.20	13.24	19.50	26.13	32.88	39.89	47.18	55.09	55.09	7 / 3							
	reaction time 0.210	interval	6.04	6.26	6.63	6.75	7.01	7.29	7.91		# of strides	13.24	12.89	13.76	15.20	26.13	28.96	2.83
	velocity	6.94	8.28	7.99	7.54	7.41	7.13	6.86	6.32	7.26		7.55	7.76	7.27	6.58	7.65	6.91	
Sato, Shizuka (JPN) (1994)	time	7.41	13.54	19.95	26.52	33.42	40.52	47.91	55.78	55.78	2 / 4							
	reaction time 0.208	interval	6.13	6.41	6.57	6.90	7.10	7.39	7.87		# of strides	13.54	12.98	14.00	15.26	26.52	29.26	2.74
	velocity	6.75	8.16	7.80	7.61	7.25	7.04	6.77	6.35	7.17		7.39	7.70	7.14	6.55	7.54	6.84	
Kondo, Kana (JPN) (1994)	time	7.08	13.37	19.79	26.48	33.37	40.49	47.87	55.78	55.78	8 / 4							
	reaction time 0.251	interval	6.29	6.42	6.69	6.89	7.12	7.38	7.91		# of strides	13.37	13.11	14.01	15.29	26.48	29.30	2.82
	velocity	7.06	7.95	7.79	7.47	7.26	7.02	6.78	6.32	7.17		7.48	7.63	7.14	6.54	7.55	6.83	
Ishizuka, Haruko (JPN) (1997)	time	7.01	13.10	19.40	26.04	33.03	40.31	47.86	55.79	55.79	3 / 6							
	reaction time 0.243	interval	6.09	6.30	6.64	6.99	7.28	7.55	7.93		# of strides	13.10	12.94	14.27	15.48	26.04	29.75	3.71
	velocity	7.13	8.21	7.94	7.53	7.15	6.87	6.62	6.31	7.17		7.63	7.73	7.01	6.46	7.68	6.72	
Iwata, Yuna (JPN) (1997)	time	7.40	13.94	20.52	27.26	34.16	41.24	48.46	56.00	56.00	9 / 7							
	reaction time 0.209	interval	6.54	6.58	6.74	6.90	7.08	7.22	7.54		# of strides	13.94	13.32	13.98	14.76	27.26	28.74	1.48
	velocity	6.76	7.65	7.60	7.42	7.25	7.06	6.93	6.63	7.14		7.17	7.51	7.15	6.78	7.34	6.96	
Fujisawa, Sayaka (JPN) (1991)	time	6.96	12.91	19.12	25.73	32.65	39.89	47.60	56.01	56.01	6 / 8							
	reaction time 0.230	interval	5.95	6.21	6.61	6.92	7.24	7.71	8.41		# of strides	12.91	12.82	14.16	16.12	25.73	30.28	4.55
	velocity	7.18	8.40	8.05	7.56	7.23	6.91	6.49	5.95	7.14		7.75	7.80	7.06	6.20	7.77	6.61	

## 2016 Chinese National Championships (Tianjin, CHN)

## FINAL

date 15-Sep-16

Yang (2019) - analysis of the characteristics of Yang Huizhen's running speed in 400m

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Yang Huizhen (CHN) (1992)	time				25.36		38.52		52.57	52.57	1 / 1							
	reaction time				interval		13.16		14.05		# of strides			13.16	14.05	25.36	27.21	1.85
	velocity				7.89		7.60		7.12	7.61				7.60	7.12	7.89	7.35	

## 2016 Olympic Games (Rio de Janeiro, BRA)

## FINAL

date 15-Aug-16

Yamamoto (2016) - race analysis of male &amp; female 400m runners at major competitions in 2016

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Miller-Uibo, Shaunae (BAH)	time	6.49	11.80	17.23	22.98	29.03	35.34	42.10	49.44	49.44	7 / 1							
	reaction time 0.155	interval	5.31	5.43	5.75	6.05	6.31	6.76	7.34		# of strides	11.80	11.18	12.36	14.10	22.98	26.46	3.48
	velocity	7.70	9.42	9.21	8.70	8.26	7.92	7.40	6.81	8.09		182.0	8.47	8.94	8.09	7.09	8.70	7.56
Felix, Allyson (USA) (1985)	time	6.54	11.88	17.42	23.23	29.42	35.80	42.41	49.51	49.51	4 / 2							
	reaction time 0.177	interval	5.34	5.54	5.81	6.19	6.38	6.61	7.10		# of strides	11.88	11.35	12.57	13.71	23.23	26.28	3.05
	velocity	7.65	9.36	9.03	8.61	8.08	7.84	7.56	7.04	8.08		181.0	8.42	8.81	7.96	7.29	8.61	7.61



reaction time	0.181	interval	5.77	5.99	6.23	6.49	6.76	7.16	7.82		# of strides	12.90	12.22	13.25	14.98	25.12	28.23	3.11
velocity	7.01		8.67	8.35	8.03	7.70	7.40	6.98	6.39	7.50		7.75	8.18	7.55	6.68	7.96	7.08	
<b>Koba, Dzhoys (UKR) (1998)</b>	time	7.27	13.21	19.29	25.50	32.08	38.92	46.06	53.74	53.74	3 / 8							
reaction time	0.224	interval	5.94	6.08	6.21	6.58	6.84	7.14	7.68		# of strides	13.21	12.29	13.42	14.82	25.50	28.24	2.74
velocity	6.88		8.42	8.22	8.05	7.60	7.31	7.00	6.51	7.44		7.57	8.14	7.45	6.75	7.84	7.08	

## Heat 4

date 19-Jul-16

Yamamoto (2016) - race analysis of male &amp; female 400m runners at major competitions in 2016

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
<b>Ishizuka, Haruko (JPN) (1997)</b>	time	6.96	12.94	19.15	25.63	32.37	39.61	47.16	55.20	3 / 4								
reaction time	0.166	interval	5.98	6.21	6.48	6.74	7.24	7.55	8.04		# of strides	12.94	12.69	13.98	15.59	25.63	29.57	3.94
velocity	7.18		8.36	8.05	7.72	7.42	6.91	6.62	6.22	7.25		7.73	7.88	7.15	6.41	7.80	6.76	

## 2016 USA Olympic Trials (Eugene, OR)

## FINAL

date 03-Jul-16

Hymans (2020) - history of the US olympic trials - track and field

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
<b>Felix, Allyson (USA) (1985)</b>	time			24.2		36.5		49.68	49.68	6 / 1								
reaction time	0.206	interval			12.30		13.18				# of strides		12.30	13.18	24.20	25.48	1.28	
velocity				8.26		8.13		7.59	8.05				8.13	7.59	8.26	7.85		
<b>Francis, Phyllis (USA) (1992)</b>	time			24.1		36.6		49.94	49.94	2 / 2								
reaction time	0.190	interval			12.50		13.34		PB		# of strides		12.50	13.34	24.10	25.84	1.74	
velocity				8.30		8.00		7.50	8.01				8.00	7.50	8.30	7.74		
<b>Hastings, Natasha (USA) (19)</b>	time	11.8		23.7		36.0		50.17	50.17	7 / 3								
reaction time	0.225	interval		11.90		12.30		14.17			# of strides	11.80	11.90	12.30	14.17	23.70	26.47	2.77
velocity		8.47		8.40		8.13		7.06	7.97			8.47	8.40	8.13	7.06	8.44	7.56	
<b>Ellis-Watson, Taylor (USA) (</b>	time			24.1		36.6		50.25	50.25	3 / 4								
reaction time	0.602	interval			12.50		13.65		PB		# of strides		12.50	13.65	24.10	26.15	2.05	
velocity				8.30		8.00		7.33	7.96				8.00	7.33	8.30	7.65		
<b>McCorory, Francena (USA) (</b>	time			23.9		36.1		50.37	50.37	5 / 5								
reaction time	0.368	interval			12.20		14.27				# of strides		12.20	14.27	23.90	26.47	2.57	
velocity				8.37		8.20		7.01	7.94				8.20	7.01	8.37	7.56		
<b>Okolo, Courtney (USA) (199</b>	time			24.3		36.6		50.39	50.39	4 / 6								
reaction time	0.271	interval			12.30		13.79				# of strides		12.30	13.79	24.30	26.09	1.79	
velocity				8.23		8.13		7.25	7.94				8.13	7.25	8.23	7.67		
<b>Spencer, Ashley (USA) (1993</b>	time			24.1		36.7		51.09	51.09	8 / 7								
reaction time	0.614	interval			12.60		14.39				# of strides		12.60	14.39	24.10	26.99	2.89	
velocity				8.30		7.94		6.95	7.83				7.94	6.95	8.30	7.41		
<b>Hayes, Quanera (USA) (1992)</b>	time			24.6		37.5		51.80	51.80	1 / 8								
reaction time	0.357	interval			12.90		14.30				# of strides		12.90	14.30	24.60	27.20	2.60	
velocity				8.13		7.75		6.99	7.72				7.75	6.99	8.13	7.35		

## 2016 Japanese National Championships (Nagoya, JPN)

## FINAL

date 25-Jun-16

Yamamoto (2016) - race analysis of male &amp; female 400m runners at major competitions in 2016

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
<b>Aoyama, Seika (JPN) (1996)</b>	time	6.73	12.46	18.40	24.54	31.01	37.89	45.12	53.04	5 / 1								
reaction time	0.221	interval	5.73	5.94	6.14	6.47	6.88	7.23	7.92		# of strides	12.46	12.08	13.35	15.15	24.54	28.50	3.96
velocity	7.43		8.73	8.42	8.14	7.73	7.27	6.92	6.31	7.54		8.03	8.28	7.49	6.60	8.15	7.02	
<b>Aoki, Rin (JPN) (1998)</b>	time	6.96	12.74	18.64	24.90	31.51	38.48	45.75	53.66	4 / 2								
reaction time	0.213	interval	5.78	5.90	6.26	6.61	6.97	7.27	7.91		# of strides	12.74	12.16	13.58	15.18	24.90	28.76	3.86
velocity	7.18		8.65	8.47	7.99	7.56	7.17	6.88	6.32	7.45		7.85	8.22	7.36	6.59	8.03	6.95	
<b>Kashiyama, Kaede (JPN) (19</b>	time	6.92	13.01	19.30	25.66	32.13	38.97	46.11	53.76	1 / 3								
reaction time	0.192	interval	6.09	6.29	6.36	6.47	6.84	7.14	7.65	PB	# of strides	13.01	12.65	13.31	14.79	25.66	28.10	2.44
velocity	7.23		8.21	7.95	7.86	7.73	7.31	7.00	6.54	7.44		7.69	7.91	7.51	6.76	7.79	7.12	
<b>Matsumoto, Nanako (JPN) (</b>	time	7.16	13.25	19.47	25.96	32.69	39.69	46.96	54.67	2 / 4								
reaction time	0.210	interval	6.09	6.22	6.49	6.73	7.00	7.27	7.71		# of strides	13.25	12.71	13.73	14.98	25.96	28.71	2.75
velocity	6.98		8.21	8.04	7.70	7.43	7.14	6.88	6.49	7.32		7.55	7.87	7.28	6.68	7.70	6.97	
<b>Ishizuka, Haruko (JPN) (1997)</b>	time	6.99	12.84	18.82	25.14	31.75	38.84	46.41	54.67	3 / 4								
reaction time	0.257	interval	5.85	5.98	6.32	6.61	7.09	7.57	8.26		# of strides	12.84	12.30	13.70	15.83	25.14	29.53	4.39
velocity	7.15		8.55	8.36	7.91	7.56	7.05	6.61	6.05	7.32		7.79	8.13	7.30	6.32	7.96	6.77	
<b>Kira, Manami (JPN) (1991)</b>	time	7.08	13.02	19.19	25.64	32.38	39.35	46.76	54.80	6 / 6								
reaction time	0.221	interval	5.94	6.17	6.45	6.74	6.97	7.41	8.04		# of strides	13.02	12.62	13.71	15.45	25.64	29.16	3.52
velocity	7.06		8.42	8.10	7.75	7.42	7.17	6.75	6.22	7.30		7.68	7.92	7.29	6.47	7.80	6.86	
<b>Odagaki, Aki (JPN) (1993)</b>	time	7.18	13.53	19.95	26.56	33.23	40.13	47.35	55.01	7 / 7								
reaction time	0.223	interval	6.35	6.42	6.61	6.67	6.90	7.22	7.66		# of strides	13.53	13.03	13.57	14.88	26.56	28.45	1.89
velocity	6.96		7.87	7.79	7.56	7.50	7.25	6.93	6.53	7.27		7.39	7.67	7.37	6.72	7.53	7.03	
<b>Shimada, Yukina (JPN) (1998)</b>	time	7.09	13.12	19.35	25.86	32.62	39.69	47.20	55.02	8 / 8								
reaction time	0.214	interval	6.03	6.23	6.51	6.76	7.07	7.51	7.82		# of strides	13.12	12.74	13.83	15.33	25.86	29.16	3.30
velocity	7.05		8.29	8.03	7.68	7.40	7.07	6.66	6.39	7.27		7.62	7.85	7.23	6.52	7.73	6.86	

## Heat 3

date 24-Jun-16

Yamamoto (2016) - race analysis of male &amp; female 400m runners at major competitions in 2016

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
<b>Aoyama, Seika (JPN) (1996)</b>	time	6.82	12.50	18.37	24.50	31.00	37.92	45.42	53.28	6 / 1								
reaction time	0.215	interval	5.68	5.87	6.13	6.50	6.92	7.50	7.86		# of strides	12.50	12.00	13.42	15.36	24.50	28.78	4.28



velocity	7.33	8.80	8.52	8.16	7.69	7.23	6.67	6.36	7.51	8.00	8.33	7.45	6.51	8.16	6.95			
<b>Shimada, Yukina (JPN) (1998)</b> time	6.98	12.91	18.95	25.24	31.79	38.94	46.63	54.59	54.59	8 / 2								
reaction time	0.208	interval	5.93	6.04	6.29	6.55	7.15	7.69	7.96	<b>PB</b>	# of strides	12.91	12.33	13.70	15.65	25.24	29.35	4.11
velocity	7.16	8.43	8.28	7.95	7.63	6.99	6.50	6.28	7.33		7.75	8.11	7.30	6.39	7.92	6.81		
<b>Matsumoto, Nanako (JPN) (1998)</b> time	7.29	13.47	19.70	26.11	32.77	39.77	47.09	54.68	54.68	3 / 3								
reaction time	0.214	interval	6.18	6.23	6.41	6.66	7.00	7.32	7.59		# of strides	13.47	12.64	13.66	14.91	26.11	28.57	2.46
velocity	6.86	8.09	8.03	7.80	7.51	7.14	6.83	6.59	7.32		7.42	7.91	7.32	6.71	7.66	7.00		

## Heat 2

date 24-Jun-16

Yamamoto (2016) - race analysis of male &amp; female 400m runners at major competitions in 2016

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
<b>Kira, Manami (JPN) (1991)</b> time	7.05	12.93	18.95	25.29	31.88	38.80	46.08	53.83	53.83	6 / 1								
reaction time	0.199	interval	5.88	6.02	6.34	6.59	6.92	7.28	7.75	<b>PB</b>	# of strides	12.93	12.36	13.51	15.03	25.29	28.54	3.25
velocity	7.09	8.50	8.31	7.89	7.59	7.23	6.87	6.45	7.43		7.73	8.09	7.40	6.65	7.91	7.01		
<b>Aoki, Sayaka (JPN) (1986)</b> time	6.89	12.83	18.95	25.31	31.96	39.01	46.60	54.87	54.87	3 / 4								
reaction time	0.264	interval	5.94	6.12	6.36	6.65	7.05	7.59	8.27		# of strides	12.83	12.48	13.70	15.86	25.31	29.56	4.25
velocity	7.26	8.42	8.17	7.86	7.52	7.09	6.59	6.05	7.29		7.79	8.01	7.30	6.31	7.90	6.77		
<b>Chiba, Asami (JPN) (1995)</b> time	6.96	12.96	19.11	25.53	32.31	39.48	47.18	55.80	55.80	4 / 7								
reaction time	0.228	interval	6.00	6.15	6.42	6.78	7.17	7.70	8.62		# of strides	12.96	12.57	13.95	16.32	25.53	30.27	4.74
velocity	7.18	8.33	8.13	7.79	7.37	6.97	6.49	5.80	7.17		7.72	7.96	7.17	6.13	7.83	6.61		

## Heat 1

date 24-Jun-16

Yamamoto (2016) - race analysis of male &amp; female 400m runners at major competitions in 2016

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
<b>Aoki, Rin (JPN) (1998)</b> time	7.09	12.93	18.99	25.36	31.95	38.80	45.89	53.44	53.44	8 / 1								
reaction time	0.215	interval	5.84	6.06	6.37	6.59	6.85	7.09	7.55	<b>PB</b>	# of strides	12.93	12.43	13.44	14.64	25.36	28.08	2.72
velocity	7.05	8.56	8.25	7.85	7.59	7.30	7.05	6.62	7.49		7.73	8.05	7.44	6.83	7.89	7.12		
<b>Ishizuka, Haruko (JPN) (1997)</b> time	7.00	12.85	18.85	25.09	31.68	38.73	46.25	54.23	54.23	7 / 2								
reaction time	0.250	interval	5.85	6.00	6.24	6.59	7.05	7.52	7.98		# of strides	12.85	12.24	13.64	15.50	25.09	29.14	4.05
velocity	7.14	8.55	8.33	8.01	7.59	7.09	6.65	6.27	7.38		7.78	8.17	7.33	6.45	7.97	6.86		
<b>Fujisawa, Sayaka (JPN) (1991)</b> time	7.11	13.05	19.19	25.58	32.18	39.22	46.83	55.07	55.07	6 / 4								
reaction time	0.182	interval	5.94	6.14	6.39	6.60	7.04	7.61	8.24		# of strides	13.05	12.53	13.64	15.85	25.58	29.49	3.91
velocity	7.03	8.42	8.14	7.82	7.58	7.10	6.57	6.07	7.26		7.66	7.98	7.33	6.31	7.82	6.78		

## 2016 Chinese National Grand Prix Final (Chongqing, CHN)

## FINAL

date 19-Jun-16

Yang (2019) - analysis of the characteristics of Yang Huizhen's running speed in 400m

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential		
<b>Yang Huizhen (CHN) (1992)</b> time				25.24		38.64		52.90	52.90	1 / 1									
reaction time						13.40		14.26											
velocity				7.92		7.46		7.01	7.56		195.0				13.40	14.26	25.24	27.66	2.42
															7.92	7.23			

## 2016 China Perfecture High School Championships (Okayama, JPN)

## FINAL

date 17-Jun-16

(2016.06.20) - [https://twitter.com/touchdown\\_time/media?lang=en&lang=en&lang=en&lang=en](https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
<b>Fukuda, Shoko (JPN) (1998)</b> time		13.65		26.55		40.13		54.93	54.93	7 / 1								
reaction time				12.90		13.58		14.80			# of strides	13.65	12.90	13.58	14.80	26.55	28.38	1.83
velocity		7.33		7.75		7.36		6.76	7.28		7.33	7.75	7.36	6.76	7.53	7.05		
<b>Ikasaki, Ai (JPN)</b> time		13.38		26.05		40.03		55.85	55.85	6 / 2								
reaction time				12.67		13.98		15.82			# of strides	13.38	12.67	13.98	15.82	26.05	29.80	3.75
velocity		7.47		7.89		7.15		6.32	7.16		7.47	7.89	7.15	6.32	7.68	6.71		
<b>Yada, Shizuka (JPN)</b> time		13.63		26.65		40.60		55.91	55.91	5 / 3								
reaction time				13.02		13.95		15.31			# of strides	13.63	13.02	13.95	15.31	26.65	29.26	2.61
velocity		7.34		7.68		7.17		6.53	7.15		7.34	7.68	7.17	6.53	7.50	6.84		
<b>Ota, Yuki (JPN) (1998)</b> time		13.61		26.87		40.65		56.26	56.26	8 / 4								
reaction time				13.26		13.78		15.61			# of strides	13.61	13.26	13.78	15.61	26.87	29.39	2.52
velocity		7.35		7.54		7.26		6.41	7.11		7.35	7.54	7.26	6.41	7.44	6.81		
<b>Takagi, Rina (JPN) (1999)</b> time		13.70		27.05		40.98		56.62	56.62	4 / 5								
reaction time				13.35		13.93		15.64			# of strides	13.70	13.35	13.93	15.64	27.05	29.57	2.52
velocity		7.30		7.49		7.18		6.39	7.06		7.30	7.49	7.18	6.39	7.39	6.76		
<b>Izu, Eri (JPN)</b> time		13.85		27.32		41.62		57.33	57.33	3 / 6								
reaction time				13.47		14.30		15.71			# of strides	13.85	13.47	14.30	15.71	27.32	30.01	2.69
velocity		7.22		7.42		6.99		6.37	6.98		7.22	7.42	6.99	6.37	7.32	6.66		

## 2016 NCAA Championships (Eugene, OR)

## FINAL

date 11-Jun-16

USTFCCCA (2017) - NCAA DI outdoor championship history

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
<b>Okolo, Courtney (USA) (1999)</b> time				24.3		36.8		50.4	50.36	4 / 1								
reaction time						12.50		13.60			# of strides			12.50	13.60	24.30	26.10	1.80
velocity				8.23		8.00		7.35	7.94					8.00	7.35	8.23	7.66	
<b>Ellis-Watson, Taylor (USA) (1999)</b> time				24.3		37.3		50.9	50.86	5 / 2								
reaction time						13.00		13.60			# of strides			13.00	13.60	24.30	26.60	2.30
velocity				8.23		7.69		7.35	7.86					7.69	7.35	8.23	7.52	
<b>Wimbley, Shakima (USA) (1999)</b> time				24.8		37.8		51.4	51.43	6 / 3								
reaction time						13.00		13.60			# of strides			13.00	13.60	24.80	26.60	1.80
velocity				8.06		7.69		7.35	7.78					7.69	7.35	8.06	7.52	

## 2016 Shizuoka International Meeting (Fukuoro, JPN)

## FINAL

date 03-May-16

Yamamoto (2016) - race analysis of male &amp; female 400m runners at major competitions in 2016

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Gulli-Nance, Jess (AUS) (198</b>	7.10	13.06	19.29	25.77	32.43	39.50	46.72	54.20	54.20	/ 1							
reaction time		5.96	6.23	6.48	6.66	7.07	7.22	7.48		# of strides	13.06	12.71	13.73	14.70	25.77	28.43	2.66
interval											7.66	7.87	7.28	6.80	7.76	7.03	
velocity	7.04	8.39	8.03	7.72	7.51	7.07	6.93	6.68	7.38								
<b>Ishizuka, Haruko (JPN) (1997</b>	6.99	12.88	19.00	25.44	32.17	39.34	46.85	54.79	54.79	/ 2							
reaction time		5.89	6.12	6.44	6.73	7.17	7.51	7.94		# of strides	12.88	12.56	13.90	15.45	25.44	29.35	3.91
interval											7.76	7.96	7.19	6.47	7.86	6.81	
velocity	7.15	8.49	8.17	7.76	7.43	6.97	6.66	6.30	7.30								
<b>Kashiyama, Kaede (JPN) (19</b>	7.03	13.16	19.65	26.09	32.68	39.68	47.01	54.91	54.91	/ 3							
reaction time		6.13	6.49	6.44	6.59	7.00	7.33	7.90		# of strides	13.16	12.93	13.59	15.23	26.09	28.82	2.73
interval											7.60	7.73	7.36	6.57	7.67	6.94	
velocity	7.11	8.16	7.70	7.76	7.59	7.14	6.82	6.33	7.28								
<b>Matsumoto, Nanako (JPN) (</b>	7.16	13.27	19.55	26.02	32.75	39.94	47.39	55.34	55.34	/ 4							
reaction time		6.11	6.28	6.47	6.73	7.19	7.45	7.95		# of strides	13.27	12.75	13.92	15.40	26.02	29.32	3.30
interval											7.54	7.84	7.18	6.49	7.69	6.82	
velocity	6.98	8.18	7.96	7.73	7.43	6.95	6.71	6.29	7.23								
<b>Iwata, Yuna (JPN) (1997)</b>	7.12	13.21	19.44	25.96	32.79	40.02	47.53	55.37	55.37	/ 5							
reaction time		6.09	6.23	6.52	6.83	7.23	7.51	7.84		# of strides	13.21	12.75	14.06	15.35	25.96	29.41	3.45
interval											7.57	7.84	7.11	6.51	7.70	6.80	
velocity	7.02	8.21	8.03	7.67	7.32	6.92	6.66	6.38	7.22								
<b>Takeishi, Konomi (JPN) (199</b>	6.87	12.79	19.00	25.68	32.81	40.21	47.89	56.11	56.11	/ 6							
reaction time		5.92	6.21	6.68	7.13	7.40	7.68	8.22		# of strides	12.79	12.89	14.53	15.90	25.68	30.43	4.75
interval											7.82	7.76	6.88	6.29	7.79	6.57	
velocity	7.28	8.45	8.05	7.49	7.01	6.76	6.51	6.08	7.13								
<b>Shintaku, Asami (JPN) (1994</b>	7.14	13.16	19.39	25.93	32.70	40.01	47.86	56.51	56.51	/ 7							
reaction time		6.02	6.23	6.54	6.77	7.31	7.85	8.65		# of strides	13.16	12.77	14.08	16.50	25.93	30.58	4.65
interval											7.60	7.83	7.10	6.06	7.71	6.54	
velocity	7.00	8.31	8.03	7.65	7.39	6.84	6.37	5.78	7.08								
<b>Kimoto, Ayana (JPN) (1996)</b>	7.54	13.94	20.52	27.37	34.51	41.96	49.64	57.96	57.96	/ 8							
reaction time		6.40	6.58	6.85	7.14	7.45	7.68	8.32		# of strides	13.94	13.43	14.59	16.00	27.37	30.59	3.22
interval											7.17	7.45	6.85	6.25	7.31	6.54	
velocity	6.63	7.81	7.60	7.30	7.00	6.71	6.51	6.01	6.90								

## Race B

date 03-May-16

Yamamoto (2016) - race analysis of male &amp; female 400m runners at major competitions in 2016

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Yoshimi, Misaki (JPN) (1994)</b>	7.14	13.25	19.65	26.26	33.12	40.26	47.72	55.77	55.77	/ 1							
reaction time		6.11	6.40	6.61	6.86	7.14	7.46	8.05		# of strides	13.25	13.01	14.00	15.51	26.26	29.51	3.25
interval											7.55	7.69	7.14	6.45	7.62	6.78	
velocity	7.00	8.18	7.81	7.56	7.29	7.00	6.70	6.21	7.17								
<b>Odagaki, Aki (JPN) (1993)</b>	7.41	13.88	20.55	27.25	33.90	40.76	48.07	55.80	55.80	/ 2							
reaction time		6.47	6.67	6.70	6.65	6.86	7.31	7.73		# of strides	13.88	13.37	13.51	15.04	27.25	28.55	1.30
interval											7.20	7.48	7.40	6.65	7.34	7.01	
velocity	6.75	7.73	7.50	7.46	7.52	7.29	6.84	6.47	7.17								
<b>Nakajima, Airi (JPN) (1997)</b>	6.91	12.76	18.94	25.46	32.30	39.78	47.78	56.49	56.49	/ 3							
reaction time		5.85	6.18	6.52	6.84	7.48	8.00	8.71		# of strides	12.76	12.70	14.32	16.71	25.46	31.03	5.57
interval											7.84	7.87	6.98	5.98	7.86	6.45	
velocity	7.24	8.55	8.09	7.67	7.31	6.68	6.25	5.74	7.08								

## Race C

03-May-16

Yamamoto (2016) - race analysis of male &amp; female 400m runners at major competitions in 2016

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Tanaka, Chisato (JPN) (1988)</b>	7.13	13.29	19.65	26.19	33.01	40.11	47.67	55.97	55.97	/ 1							
reaction time		6.16	6.36	6.54	6.82	7.10	7.56	8.30		# of strides	13.29	12.90	13.92	15.86	26.19	29.78	3.59
interval											7.52	7.75	7.18	6.31	7.64	6.72	
velocity	7.01	8.12	7.86	7.65	7.33	7.04	6.61	6.02	7.15								

## 2016 Chinese National Grand Prix (Shaoxing, CHN)

## FINAL

date 16-Apr-16

Yang (2019) - analysis of the characteristics of Yang Huizhen's running speed in 400m

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Yang Huizhen (CHN) (1992)</b>				25.52		38.72		52.77	52.77	/ 1							
reaction time						13.20		14.05		# of strides			13.20	14.05	25.52	27.25	1.73
interval																	
velocity				7.84		7.58		7.12	7.58		197.0		7.58	7.12	7.84	7.34	

## 2016 East Java National Championships (Surabaya, INA)

## FINAL

date 15-Apr-16

Saputri (2016) - analisis kecepatan lari 400m putri final kejuaraan nasional atletik jawa timur terbuka

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Sulastrı (INA) (1992)</b>	7.04	13.58	19.50	26.08	33.89	41.48	47.98	57.51	57.51	/ 1							
reaction time		6.54	5.92	6.58	7.81	7.59	6.50	9.53		# of strides	13.58	12.50	15.40	16.03	26.08	31.43	5.35
interval											7.36	8.00	6.49	6.24	7.67	6.36	
velocity	7.10	7.65	8.45	7.60	6.40	6.59	7.69	5.25	6.96								
<b>Kurniawati, Dewi Ayu Agung</b>	7.01	13.52	19.54	26.60	34.46	42.12	48.69	58.48	58.48	/ 2							
reaction time		6.51	6.02	7.06	7.86	7.66	6.57	9.79		# of strides	13.52	13.08	15.52	16.36	26.60	31.88	5.28
interval											7.40	7.65	6.44	6.11	7.52	6.27	
velocity	7.13	7.68	8.31	7.08	6.36	6.53	7.61	5.11	6.84								
<b>Nafiah, Nikmatul (INA)</b>	7.04	13.73	20.06	26.96	34.92	42.84	49.74	59.64	59.64	/ 3							
reaction time		6.69	6.33	6.90	7.96	7.92	6.90	9.90		# of strides	13.73	13.23	15.88	16.80	26.96	32.68	5.72
interval											7.28	7.56	6.30	5.95	7.42	6.12	
velocity	7.10	7.47	7.90	7.25	6.28	6.31	7.25	5.05	6.71								
<b>Christianti, Emma Anita (INA</b>	7.11	14.27	20.46	27.56	35.66	43.44	50.03	59.81	59.81	/ 4							
reaction time		7.16	6.19	7.10	8.10	7.78	6.59	9.78		# of strides	14.27	13.29	15.88	16.37	27.56	32.25	4.69

velocity	7.00	6.67	8.09	6.78	5.82	5.92	6.78	4.38	6.25		6.83	7.37	5.87	5.32	7.09	5.58	
<b>Angelia, Niken (INA) (1997)</b> time	7.51	15.24	22.02	29.68	38.19	46.96	54.28	64.38	64.38	/ 7							
reaction time interval		7.73	6.78	7.66	8.51	8.77	7.32	10.10		# of strides	15.24	14.44	17.28	17.42	29.68	34.70	5.02
velocity	6.66	6.47	7.37	6.53	5.88	5.70	6.83	4.95	6.21		6.56	6.93	5.79	5.74	6.74	5.76	

## 2015 Japanese National Junior Championships (Nagoya, JPN)

## FINAL

date 16-Oct-15

Kohei (2015) - 400m race analysis of male &amp; female at major 2015 competitions

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Iwata, Yuna (JPN) (1997)</b> time		7.05	13.01	19.10	25.54	32.17	39.06	46.26	53.79	53.79	/ 1							
reaction time interval			5.96	6.09	6.44	6.63	6.89	7.20	7.53		# of strides	13.01	12.53	13.52	14.73	25.54	28.25	2.71
velocity		7.09	8.39	8.21	7.76	7.54	7.26	6.94	6.64	7.44		7.69	7.98	7.40	6.79	7.83	7.08	
<b>Ishizuka, Haruko (JPN) (1997)</b> time		7.04	12.97	19.10	25.51	32.17	39.14	46.44	54.21	54.21	/ 2							
reaction time interval			5.93	6.13	6.41	6.66	6.97	7.30	7.77		# of strides	12.97	12.54	13.63	15.07	25.51	28.70	3.19
velocity		7.10	8.43	8.16	7.80	7.51	7.17	6.85	6.44	7.38		7.71	7.97	7.34	6.64	7.84	6.97	
<b>Matsumoto, Fuya (JPN) (1997)</b> time		7.07	13.11	19.39	26.02	32.86	39.96	47.27	54.93	54.93	/ 3							
reaction time interval			6.04	6.28	6.63	6.84	7.10	7.31	7.66		# of strides	13.11	12.91	13.94	14.97	26.02	28.91	2.89
velocity		7.07	8.28	7.96	7.54	7.31	7.04	6.84	6.53	7.28		7.63	7.75	7.17	6.68	7.69	6.92	
<b>Nakajima, Airi (JPN) (1997)</b> time		7.10	13.01	19.44	26.18	33.05	40.13	47.45	55.10	55.10	/ 4							
reaction time interval			5.91	6.43	6.74	6.87	7.08	7.32	7.65		# of strides	13.01	13.17	13.95	14.97	26.18	28.92	2.74
velocity		7.04	8.46	7.78	7.42	7.28	7.06	6.83	6.54	7.26		7.69	7.59	7.17	6.68	7.64	6.92	
<b>Shibata, Chiharu (JPN) (1997)</b> time		7.25	13.41	19.84	26.52	33.21	40.15	47.38	55.18	55.18	/ 5							
reaction time interval			6.16	6.43	6.68	6.69	6.94	7.23	7.80		# of strides	13.41	13.11	13.63	15.03	26.52	28.66	2.14
velocity		6.90	8.12	7.78	7.49	7.47	7.20	6.92	6.41	7.25		7.46	7.63	7.34	6.65	7.54	6.98	
<b>Shiiba, Kanako (JPN) (1997)</b> time		7.31	13.43	19.89	26.67	33.62	40.82	48.21	55.91	55.91	/ 6							
reaction time interval			6.12	6.46	6.78	6.95	7.20	7.39	7.70		# of strides	13.43	13.24	14.15	15.09	26.67	29.24	2.57
velocity		6.84	8.17	7.74	7.37	7.19	6.94	6.77	6.49	7.15		7.45	7.55	7.07	6.63	7.50	6.84	
<b>Arai, Arashima (JPN)</b> time		7.40	13.60	20.07	26.95	33.87	40.96	48.29	56.16	56.16	/ 7							
reaction time interval			6.20	6.47	6.88	6.92	7.09	7.33	7.87		# of strides	13.60	13.35	14.01	15.20	26.95	29.21	2.26
velocity		6.76	8.06	7.73	7.27	7.23	7.05	6.82	6.35	7.12		7.35	7.49	7.14	6.58	7.42	6.85	
<b>Okabe, Yuika (JPN) (1996)</b> time		7.13	13.12	19.40	26.06	33.01	40.34	48.09	56.40	56.40	/ 8							
reaction time interval			5.99	6.28	6.66	6.95	7.33	7.75	8.31		# of strides	13.12	12.94	14.28	16.06	26.06	30.34	4.28
velocity		7.01	8.35	7.96	7.51	7.19	6.82	6.45	6.02	7.09		7.62	7.73	7.00	6.23	7.67	6.59	

## 2015 Japanese National Youth Championships (Nagoya, JPN)

## FINAL

date 16-Oct-15

Kohei (2015) - 400m race analysis of male &amp; female at major 2015 competitions

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Shimada, Yukina (JPN) (1998)</b> time		7.22	13.42	19.87	26.47	33.29	40.38	47.66	54.85	54.85	/ 1							
reaction time interval			6.20	6.45	6.60	6.82	7.09	7.28	7.19		# of strides	13.42	13.05	13.91	14.47	26.47	28.38	1.91
velocity		6.93	8.06	7.75	7.58	7.33	7.05	6.87	6.95	7.29		7.45	7.66	7.19	6.91	7.56	7.05	
<b>Aoki, Rin (JPN) (1998)</b> time		7.04	12.98	19.24	25.78	32.64	39.79	47.14	54.87	54.87	/ 2							
reaction time interval			5.94	6.26	6.54	6.86	7.15	7.35	7.73		# of strides	12.98	12.80	14.01	15.08	25.78	29.09	3.31
velocity		7.10	8.42	7.99	7.65	7.29	6.99	6.80	6.47	7.29		7.70	7.81	7.14	6.63	7.76	6.88	
<b>Koyoma, Kana (JPN) (1998)</b> time		7.27	13.52	20.00	26.74	33.56	40.54	47.76	55.59	55.59	/ 3							
reaction time interval			6.25	6.48	6.74	6.82	6.98	7.22	7.83		# of strides	13.52	13.22	13.80	15.05	26.74	28.85	2.11
velocity		6.88	8.00	7.72	7.42	7.33	7.16	6.93	6.39	7.20		7.40	7.56	7.25	6.64	7.48	6.93	
<b>Shibata, Mie (JPN) (1998)</b> time		7.09	13.05	19.44	26.20	33.15	40.47	48.06	55.88	55.88	/ 4							
reaction time interval			5.96	6.39	6.76	6.95	7.32	7.59	7.82		# of strides	13.05	13.15	14.27	15.41	26.20	29.68	3.48
velocity		7.05	8.39	7.82	7.40	7.19	6.83	6.59	6.39	7.16		7.66	7.60	7.01	6.49	7.63	6.74	
<b>Totani, Nukumii (JPN) (1998)</b> time		7.23	13.23	19.47	26.06	32.95	40.25	47.87	55.94	55.94	/ 5							
reaction time interval			6.00	6.24	6.59	6.89	7.30	7.62	8.07		# of strides	13.23	12.83	14.19	15.69	26.06	29.88	3.82
velocity		6.92	8.33	8.01	7.59	7.26	6.85	6.56	6.20	7.15		7.56	7.79	7.05	6.37	7.67	6.69	
<b>Hatano, Minami (JPN) (1998)</b> time		7.39	13.80	20.35	27.14	34.16	41.34	48.61	56.07	56.07	/ 6							
reaction time interval			6.41	6.55	6.79	7.02	7.18	7.27	7.46		# of strides	13.80	13.34	14.20	14.73	27.14	28.93	1.79
velocity		6.77	7.80	7.63	7.36	7.12	6.96	6.88	6.70	7.13		7.25	7.50	7.04	6.79	7.37	6.91	
<b>Shiomi, Ayano (JPN) (1999)</b> time		7.50	13.96	20.55	27.35	34.36	41.48	48.68	56.13	56.13	/ 7							
reaction time interval			6.46	6.59	6.80	7.01	7.12	7.20	7.45		# of strides	13.96	13.39	14.13	14.65	27.35	28.78	1.43
velocity		6.67	7.74	7.59	7.35	7.13	7.02	6.94	6.71	7.13		7.16	7.47	7.08	6.83	7.31	6.95	
<b>Minami, Enari (JPN) (1999)</b> time		7.15	13.23	19.60	26.41	33.45	40.92	48.64	56.78	56.78	/ 8							
reaction time interval			6.08	6.37	6.81	7.04	7.47	7.72	8.14		# of strides	13.23	13.18	14.51	15.86	26.41	30.37	3.96
velocity		6.99	8.22	7.85	7.34	7.10	6.69	6.48	6.14	7.04		7.56	7.59	6.89	6.31	7.57	6.59	

## 2015 National Sports Festival (Wakayama, JPN)

## U19 FINAL

date 05-Oct-15

Kohei (2015) - 400m race analysis of male &amp; female at major 2015 competitions

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Iwata, Yuna (JPN) (1997)</b> time		7.19	13.44	19.84	26.41	33.19	40.10	47.08	54.28	54.28	/ 1							
reaction time interval			6.25	6.40	6.57	6.78	6.91	6.98	7.20		# of strides	13.44	12.97	13.69	14.18	26.41	27.87	1.46
velocity		6.95	8.00	7.81	7.61	7.37	7.24	7.16	6.94	7.37		7.44	7.71	7.30	7.05	7.57	7.18	
<b>Ishizuka, Haruko (JPN) (1997)</b> time		6.99	12.97	19.29	25.77	32.44	39.43	46.76	54.44	54.44	/ 2							
reaction time interval			5.98	6.32	6.48	6.67	6.99	7.33	7.68		# of strides	12.97	12.80	13.66	15.01	25.77	28.67	2.90
velocity		7.15	8.36	7.91	7.72	7.50	7.15	6.82	6.51	7.35		7.71	7.81	7.32	6.66	7.76	6.98	



<b>Aoki, Rin (JPN) (1998)</b>	time	7.20	13.34	19.70	26.42	33.43	40.60	47.73	55.41	55.41	/ 3								
reaction time	interval		6.14	6.36	6.72	7.01	7.17	7.13	7.68		# of strides	13.34	13.08	14.18	14.81	26.42	28.99	2.57	
	velocity	6.94	8.14	7.86	7.44	7.13	6.97	7.01	6.51	7.22		7.50	7.65	7.05	6.75	7.57	6.90		
<b>Matsumoto, Fuya (JPN) (1991)</b>	time	7.19	13.48	20.07	26.88	33.76	40.86	48.14	55.79	55.79	/ 4								
reaction time	interval		6.29	6.59	6.81	6.88	7.10	7.28	7.65		# of strides	13.48	13.40	13.98	14.93	26.88	28.91	2.03	
	velocity	6.95	7.95	7.59	7.34	7.27	7.04	6.87	6.54	7.17		7.42	7.46	7.15	6.70	7.44	6.92		
<b>Nakajima, Airi (JPN) (1997)</b>	time	7.11	13.32	19.72	26.49	33.37	40.55	47.99	55.85	55.85	/ 5								
reaction time	interval		6.21	6.40	6.77	6.88	7.18	7.44	7.86		# of strides	13.32	13.17	14.06	15.30	26.49	29.36	2.87	
	velocity	7.03	8.05	7.81	7.39	7.27	6.96	6.72	6.36	7.16		7.51	7.59	7.11	6.54	7.55	6.81		
<b>Shibata, Chiharu (JPN) (1997)</b>	time	7.24	13.49	19.94	26.61	33.54	40.58	48.01	56.04	56.04	/ 6								
reaction time	interval		6.25	6.45	6.67	6.93	7.04	7.43	8.03		# of strides	13.49	13.12	13.97	15.46	26.61	29.43	2.82	
	velocity	6.91	8.00	7.75	7.50	7.22	7.10	6.73	6.23	7.14		7.41	7.62	7.16	6.47	7.52	6.80		
<b>Shibata, Mie (JPN) (1998)</b>	time	7.07	13.10	19.47	26.28	33.40	40.74	48.37	56.46	56.46	/ 7								
reaction time	interval		6.03	6.37	6.81	7.12	7.34	7.63	8.09		# of strides	13.10	13.18	14.46	15.72	26.28	30.18	3.90	
	velocity	7.07	8.29	7.85	7.34	7.02	6.81	6.55	6.18	7.08		7.63	7.59	6.92	6.36	7.61	6.63		
<b>Fujii, Ayano (JPN) (1998)</b>	time	7.33	13.57	20.00	26.81	33.88	41.23	48.91	57.24	57.24	/ 8								
reaction time	interval		6.24	6.43	6.81	7.07	7.35	7.68	8.33		# of strides	13.57	13.24	14.42	16.01	26.81	30.43	3.62	
	velocity	6.82	8.01	7.78	7.34	7.07	6.80	6.51	6.00	6.99		7.37	7.55	6.93	6.25	7.46	6.57		
<b>FINAL</b>	date	04-Oct-15	<i>Kohei (2015) - 400m race analysis of male &amp; female at major 2015 competitions</i>																
			<b>50m</b>	<b>100m</b>	<b>150m</b>	<b>200m</b>	<b>250m</b>	<b>300m</b>	<b>350m</b>	<b>400m</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>0-100m</b>	<b>100-200m</b>	<b>200-300m</b>	<b>300-400m</b>	<b>0-200m</b>	<b>200m-400m</b>	<b>Differential</b>
<b>Aoyama, Seika (JPN) (1996)</b>	time	6.94	12.80	19.14	25.70	32.42	39.34	46.40	53.75	53.75	5 / 1								
reaction time	interval		5.86	6.34	6.56	6.72	6.92	7.06	7.35		# of strides	12.80	12.90	13.64	14.41	25.70	28.05	2.35	
	velocity	7.20	8.53	7.89	7.62	7.44	7.23	7.08	6.80	7.44		7.81	7.75	7.33	6.94	7.78	7.13		
<b>Matsumoto, Nanako (JPN) (1991)</b>	time	7.20	13.60	20.27	26.98	33.71	40.48	47.41	54.69	54.69	3 / 2								
reaction time	interval		6.40	6.67	6.71	6.73	6.77	6.93	7.28		# of strides	13.60	13.38	13.50	14.21	26.98	27.71	0.73	
	velocity	6.94	7.81	7.50	7.45	7.43	7.39	7.22	6.87	7.31		7.35	7.47	7.41	7.04	7.41	7.22		
<b>Chiba, Asami (JPN) (1985)</b>	time	7.01	13.24	19.84	26.64	33.45	40.27	47.36	54.74	54.74	7 / 3								
reaction time	interval		6.23	6.60	6.80	6.81	6.82	7.09	7.38		# of strides	13.24	13.40	13.63	14.47	26.64	28.10	1.46	
	velocity	7.13	8.03	7.58	7.35	7.34	7.33	7.05	6.78	7.31		7.55	7.46	7.34	6.91	7.51	7.12		
<b>Nishida, Ayaka (JPN) (1993)</b>	time	7.09	13.27	19.85	26.64	33.60	40.53	47.63	55.10	55.10	8 / 4								
reaction time	interval		6.18	6.58	6.79	6.96	6.93	7.10	7.47		# of strides	13.27	13.37	13.89	14.57	26.64	28.46	1.82	
	velocity	7.05	8.09	7.60	7.36	7.18	7.22	7.04	6.69	7.26		7.54	7.48	7.20	6.86	7.51	7.03		
<b>Aoki, Sayaka (JPN) (1986)</b>	time	6.89	13.03	19.62	26.40	33.28	40.28	47.54	55.14	55.14	9 / 5								
reaction time	interval		6.14	6.59	6.78	6.88	7.00	7.26	7.60		# of strides	13.03	13.37	13.88	14.86	26.40	28.74	2.34	
	velocity	7.26	8.14	7.59	7.37	7.27	7.14	6.89	6.58	7.25		7.67	7.48	7.20	6.73	7.58	6.96		
<b>Sato, Hinako (JPN) (1996)</b>	time	7.17	13.78	20.62	27.33	33.94	40.75	47.81	55.23	55.23	6 / 6								
reaction time	interval		6.61	6.84	6.71	6.61	6.81	7.06	7.42		# of strides	13.78	13.55	13.42	14.48	27.33	27.90	0.57	
	velocity	6.97	7.56	7.31	7.45	7.56	7.34	7.08	6.74	7.24		7.26	7.38	7.45	6.91	7.32	7.17		
<b>Shintaku, Asami (JPN) (1994)</b>	time	7.28	13.64	20.27	27.07	33.80	40.60	47.70	55.40	55.40	4 / 7								
reaction time	interval		6.36	6.63	6.80	6.73	6.80	7.10	7.70		# of strides	13.64	13.43	13.53	14.80	27.07	28.33	1.26	
	velocity	6.87	7.86	7.54	7.35	7.43	7.35	7.04	6.49	7.22		7.33	7.45	7.39	6.76	7.39	7.06		
<b>Kubokura, Satomi (JPN) (1991)</b>	time	7.00	13.28	19.99	26.81	33.71	40.67	47.85	55.47	55.47	4 / 7								
reaction time	interval		6.28	6.71	6.82	6.90	6.96	7.18	7.62		# of strides	13.28	13.53	13.86	14.80	26.81	28.66	1.85	
	velocity	7.14	7.96	7.45	7.33	7.25	7.18	6.96	6.56	7.21		7.53	7.39	7.22	6.76	7.46	6.98		
<b>2015 IAAF World Championships (Beijing, CHN)</b>			<i>Kohei (2015) - 400m race analysis of male &amp; female at major 2015 competitions</i>																
<b>FINAL</b>	date	27-Aug-15	<b>50m</b>	<b>100m</b>	<b>150m</b>	<b>200m</b>	<b>250m</b>	<b>300m</b>	<b>350m</b>	<b>400m</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>0-100m</b>	<b>100-200m</b>	<b>200-300m</b>	<b>300-400m</b>	<b>0-200m</b>	<b>200m-400m</b>	<b>Differential</b>
<b>Felix, Allyson (USA) (1985)</b>	time	6.29	11.46	17.15	23.34	29.46	35.67	42.24	49.26	49.26	6 / 1								
reaction time	0.164 interval		5.17	5.69	6.19	6.12	6.21	6.57	7.02	<b>PB</b>	# of strides	11.46	11.88	12.33	13.59	23.34	25.92	2.58	
	velocity	7.95	9.67	8.79	8.08	8.17	8.05	7.61	7.12	8.12		179.5	8.73	8.42	8.11	7.36	8.57	7.72	
<b>Miller-Uibo, Shaunae (BAH) (1991)</b>	time	6.78	12.24	17.90	23.84	30.01	36.14	42.65	49.67	49.67	5 / 2								
reaction time	0.176 interval		5.46	5.66	5.94	6.17	6.13	6.51	7.02	<b>PB</b>	# of strides	12.24	11.60	12.30	13.53	23.84	25.83	1.99	
	velocity	7.37	9.16	8.83	8.42	8.10	8.16	7.68	7.12	8.05		8.17	8.62	8.13	7.39	8.39	7.74		
<b>Jackson, Shericka (JAM) (1991)</b>	time	6.80	12.14	17.63	23.45	29.56	36.03	42.79	49.99	49.99	4 / 3								
reaction time	0.196 interval		5.34	5.49	5.82	6.11	6.47	6.76	7.20	<b>PB</b>	# of strides	12.14	11.31	12.58	13.96	23.45	26.54	3.09	
	velocity	7.35	9.36	9.11	8.59	8.18	7.73	7.40	6.94	8.00		8.24	8.84	7.95	7.16	8.53	7.54		
<b>Day, Christine (JAM) (1986)</b>	time	6.94	12.61	18.42	24.37	30.40	36.62	43.17	50.14	50.14	8 / 4								
reaction time	0.180 interval		5.67	5.81	5.95	6.03	6.22	6.55	6.97	<b>PB</b>	# of strides	12.61	11.76	12.25	13.52	24.37	25.77	1.40	
	velocity	7.20	8.82	8.61	8.40	8.29	8.04	7.63	7.17	7.98		7.93	8.50	8.16	7.40	8.21	7.76		
<b>McPherson, Stephenie (JAM) (1991)</b>	time	6.78	12.41	18.18	24.27	30.36	36.58	43.19	50.42	50.42	9 / 5								
reaction time	0.150 interval		5.63	5.77	6.09	6.09	6.22	6.61	7.23		# of strides	12.41	11.86	12.31	13.84	24.27	26.15	1.88	
	velocity	7.37	8.88	8.67	8.21	8.21	8.04	7.56	6.92	7.93		8.06	8.43	8.12	7.23	8.24	7.65		
<b>Williams-Mills, Novlene (JAM) (1991)</b>	time	6.79	12.37	18.02	23.96	30.13	36.57	43.37	50.47	50.47	2 / 6								
reaction time	0.313 interval		5.58	5.65	5.94	6.17	6.44	6.80	7.10		# of strides	12.37	11.59	12.61	13.90	23.96	26.51	2.55	
	velocity	7.36	8.96	8.85	8.42	8.10	7.76	7.35	7.04	7.93		8.08	8.63	7.93	7.19	8.35	7.54		
<b>Francis, Phyllis (USA) (1992)</b>	time	6.74	12.28	17.93	23.94	30.23	36.64	43.34	50.51	50.51	3 / 7								
reaction time	0.183 interval		5.54	5.65	6.01	6.29	6.41	6.70	7.17		# of strides	12.28	11.66	12.70	13.87	23.94	26.57	2.63	
	velocity	7.42	9.03	8.85	8.32	7.95	7.80	7.46	6.97	7.92		8.14	8.58						

<b>Ohurougu, Christine (GBR)</b> time	6.68	12.10	17.77	23.76	29.92	36.29	43.07	50.63	50.63	7 / 8							
reaction time	0.189	5.42	5.67	5.99	6.16	6.37	6.78	7.56		# of strides	12.10	11.66	12.53	14.34	23.76	26.87	3.11
velocity	7.49	9.23	8.82	8.35	8.12	7.85	7.37	6.61	7.90		8.26	8.58	7.98	6.97	8.42	7.44	

## Heat 6

date 24-Aug-15

Yamamoto (2015) - race analysis of 15th World Championships 400m- focusing on men's semis and women's prelims

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Miller-Uibo, Shaunae (BAH)</b> time	6.76	12.30	18.05	24.11	30.28	36.64	43.28	50.53	50.53	5 / 1							
reaction time	0.181	5.54	5.75	6.06	6.17	6.36	6.64	7.25		# of strides	12.30	11.81	12.53	13.89	24.11	26.42	2.31
velocity	7.40	9.03	8.70	8.25	8.10	7.86	7.53	6.90	7.92		8.13	8.47	7.98	7.20	8.30	7.57	
<b>Williams-Mills, Novlene (JAM)</b> time	6.86	12.34	18.07	24.02	30.26	36.75	43.61	51.07	51.07	3 / 2							
reaction time	0.306	5.48	5.73	5.95	6.24	6.49	6.86	7.46		# of strides	12.34	11.68	12.73	14.32	24.02	27.05	3.03
velocity	7.29	9.12	8.73	8.40	8.01	7.70	7.29	6.70	7.83		8.10	8.56	7.86	6.98	8.33	7.39	
<b>Renzhina, Yekaterina (RUS)</b> time	6.84	12.55	18.44	24.67	31.06	37.49	44.25	51.55	51.55	7 / 3							
reaction time	0.193	5.71	5.89	6.23	6.39	6.43	6.76	7.30		# of strides	12.55	12.12	12.82	14.06	24.67	26.88	2.21
velocity	7.31	8.76	8.49	8.03	7.82	7.78	7.40	6.85	7.76		7.97	8.25	7.80	7.11	8.11	7.44	
<b>Grenot, Libania (ITA) (1983)</b> time	6.71	12.38	18.37	24.60	31.02	37.64	44.49	51.64	51.64	8 / 4							
reaction time	0.186	5.67	5.99	6.23	6.42	6.62	6.85	7.15		# of strides	12.38	12.22	13.04	14.00	24.60	27.04	2.44
velocity	7.45	8.82	8.35	8.03	7.79	7.55	7.30	6.99	7.75		8.08	8.18	7.67	7.14	8.13	7.40	
<b>Zemlyak, Olha (UKR) (1990)</b> time	6.89	12.59	18.44	24.56	30.90	37.51	44.46	52.00	52.00	9 / 5							
reaction time	0.197	5.70	5.85	6.12	6.34	6.61	6.95	7.54		# of strides	12.59	11.97	12.95	14.49	24.56	27.44	2.88
velocity	7.26	8.77	8.55	8.17	7.89	7.56	7.19	6.63	7.69		7.94	8.35	7.72	6.90	8.14	7.29	
<b>Baumgart, Iga (POL) (1989)</b> time	7.01	12.70	18.59	24.77	31.10	37.65	44.60	52.02	52.02	6 / 6							
reaction time	0.228	5.69	5.89	6.18	6.33	6.55	6.95	7.42		# of strides	12.70	12.07	12.88	14.37	24.77	27.25	2.48
velocity	7.13	8.79	8.49	8.09	7.90	7.63	7.19	6.74	7.69		7.87	8.29	7.76	6.96	8.07	7.34	
<b>Bokesa, Auri Lorena (ESP)</b> time	7.12	12.92	18.87	24.98	31.32	37.99	45.14	52.98	52.98	4 / 7							
reaction time	0.194	5.80	5.95	6.11	6.34	6.67	7.15	7.84		# of strides	12.92	12.06	13.01	14.99	24.98	28.00	3.02
velocity	7.02	8.62	8.40	8.18	7.89	7.50	6.99	6.38	7.55		7.74	8.29	7.69	6.67	8.01	7.14	

## Heat 5

date 24-Aug-15

Yamamoto (2015) - race analysis of 15th World Championships 400m- focusing on men's semis and women's prelims

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Răzor, Bianca (ROU) (1994)</b> time	6.94	12.63	18.47	24.46	30.55	36.81	43.37	50.37	50.37	9 / 1							
reaction time	0.194	5.69	5.84	5.99	6.09	6.26	6.56	7.00		# of strides	12.63	11.83	12.35	13.56	24.46	25.91	1.45
velocity	7.20	8.79	8.56	8.35	8.21	7.99	7.62	7.14	7.94		7.92	8.45	8.10	7.37	8.18	7.72	
<b>Jackson, Shericka (JAM) (1978)</b> time	6.70	12.29	18.00	23.93	30.20	36.66	43.39	50.41	50.41	5 / 2							
reaction time	0.183	5.59	5.71	5.93	6.27	6.46	6.73	7.02		# of strides	12.29	11.64	12.73	13.75	23.93	26.48	2.55
velocity	7.46	8.94	8.76	8.43	7.97	7.74	7.43	7.12	7.93		8.14	8.59	7.86	7.27	8.36	7.55	
<b>George, Patience (NGR) (1991)</b> time	6.71	12.18	17.87	23.83	30.00	36.53	43.47	50.87	50.87	3 / 3							
reaction time	0.249	5.47	5.69	5.96	6.17	6.53	6.94	7.40		# of strides	12.18	11.65	12.70	14.34	23.83	27.04	3.21
velocity	7.45	9.14	8.79	8.39	8.10	7.66	7.20	6.76	7.86		8.21	8.58	7.87	6.97	8.39	7.40	
<b>Onuora, Anyika (GBR) (1984)</b> time	6.86	12.43	18.42	24.64	30.87	37.11	43.79	51.14	51.14	6 / 4							
reaction time	0.167	5.57	5.99	6.22	6.23	6.24	6.68	7.35		# of strides	12.43	12.21	12.47	14.03	24.64	26.50	1.86
velocity	7.29	8.98	8.35	8.04	8.03	8.01	7.49	6.80	7.82		8.05	8.19	8.02	7.13	8.12	7.55	
<b>Muir, Carline (CAN) (1987)</b> time	6.89	12.45	18.18	24.14	30.39	36.96	44.04	51.70	51.70	4 / 5							
reaction time	0.229	5.56	5.73	5.96	6.25	6.57	7.08	7.66		# of strides	12.45	11.69	12.82	14.74	24.14	27.56	3.42
velocity	7.26	8.99	8.73	8.39	8.00	7.61	7.06	6.53	7.74		8.03	8.55	7.80	6.78	8.29	7.26	
<b>Veitia, Lisneydi (CUB) (1994)</b> time	7.04	12.78	18.75	25.04	31.46	37.96	44.79	52.25	52.25	7 / 6							
reaction time	0.364	5.74	5.97	6.29	6.42	6.50	6.83	7.46		# of strides	12.78	12.26	12.92	14.29	25.04	27.21	2.17
velocity	7.10	8.71	8.38	7.95	7.79	7.69	7.32	6.70	7.66		7.82	8.16	7.74	7.00	7.99	7.35	

## Heat 4

date 24-Aug-15

Yamamoto (2015) - race analysis of 15th World Championships 400m- focusing on men's semis and women's prelims

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>McPherson, Stephenie (JAM)</b> time	6.68	12.22	17.93	23.86	30.07	36.63	43.42	50.34	50.34	5 / 1							
reaction time	0.169	5.54	5.71	5.93	6.21	6.56	6.79	6.92		# of strides	12.22	11.64	12.77	13.71	23.86	26.48	2.62
velocity	7.49	9.03	8.76	8.43	8.05	7.62	7.36	7.23	7.95		8.18	8.59	7.83	7.29	8.38	7.55	
<b>Francis, Phyllis (USA) (1992)</b> time	6.76	12.35	18.07	24.11	30.40	36.81	43.47	50.52	50.52	6 / 2							
reaction time	0.170	5.59	5.72	6.04	6.29	6.41	6.66	7.05		# of strides	12.35	11.76	12.70	13.71	24.11	26.41	2.30
velocity	7.40	8.94	8.74	8.28	7.95	7.80	7.51	7.09	7.92		8.10	8.50	7.87	7.29	8.30	7.57	
<b>Kotlyarova, Nadezhda (RUS)</b> time	6.75	12.31	18.08	24.11	30.39	37.03	43.98	51.42	51.42	3 / 3							
reaction time	0.187	5.56	5.77	6.03	6.28	6.64	6.95	7.44		# of strides	12.31	11.80	12.92	14.39	24.11	27.31	3.20
velocity	7.41	8.99	8.67	8.29	7.96	7.53	7.19	6.72	7.78		8.12	8.47	7.74	6.95	8.30	7.32	
<b>George, Regina (NGR) (1991)</b> time	6.84	12.51	18.42	24.54	31.01	37.55	44.41	51.74	51.74	9 / 4							
reaction time	0.192	5.67	5.91	6.12	6.47	6.54	6.86	7.33		# of strides	12.51	12.03	13.01	14.19	24.54	27.20	2.66
velocity	7.31	8.82	8.46	8.17	7.73	7.65	7.29	6.82	7.73		7.99	8.31	7.69	7.05	8.15	7.35	
<b>Holub, Małgorzata (POL) (1978)</b> time	7.04	12.78	18.55	24.49	30.70	37.21	44.15	51.74	51.74	4 / 5							
reaction time	0.200	5.74	5.77	5.94	6.21	6.51	6.94	7.59		# of strides	12.78	11.71	12.72	14.53	24.49	27.25	2.76
velocity	7.10	8.71	8.67	8.42	8.05	7.68	7.20	6.59	7.73		7.82	8.54	7.86	6.88	8.17	7.34	
<b>Palfaman, Justine (RSA) (1978)</b> time	6.69	12.32	18.30	24.43	30.79	37.34	44.47	52.45	52.45	8 / 6							
reaction time	0.168	5.63	5.98	6.13	6.36	6.55	7.13	7.98		# of strides	12.32	12.11	12.91	15.11	24.43	28.02	3.59
velocity	7.47	8.88	8.36	8.16	7.86	7.63	7.01	6.27	7.63		8.12	8.26	7.75	6.62	8.19	7.14	

## Heat 3

date 24-Aug-15

Yamamoto (2015) - race analysis of 15th World Championships 400m- focusing on men's semis and women's prelims





<b>Iwata, Yuna (JPN) (1997)</b>	time	7.05	13.16	19.39	25.83	32.52	39.51	46.71	54.37	54.37	/ 2							
	reaction time	interval	6.11	6.23	6.44	6.69	6.99	7.20	7.66		# of strides	13.16	12.67	13.68	14.86	25.83	28.54	2.71
	velocity	7.09	8.18	8.03	7.76	7.47	7.15	6.94	6.53	7.36		7.60	7.89	7.31	6.73	7.74	7.01	
<b>Aoki, Rin (JPN) (1998)</b>	time	7.21	13.29	19.49	26.00	32.84	39.90	47.05	54.74	54.74	/ 3							
	reaction time	interval	6.08	6.20	6.51	6.84	7.06	7.15	7.69	<b>PB</b>	# of strides	13.29	12.71	13.90	14.84	26.00	28.74	2.74
	velocity	6.93	8.22	8.06	7.68	7.31	7.08	6.99	6.50	7.31		7.52	7.87	7.19	6.74	7.69	6.96	
<b>Ikezaki, Airi (JPN) (1998)</b>	time	7.15	13.04	19.22	25.73	32.59	39.78	47.17	55.08	55.08	/ 4							
	reaction time	interval	5.89	6.18	6.51	6.86	7.19	7.39	7.91		# of strides	13.04	12.69	14.05	15.30	25.73	29.35	3.62
	velocity	6.99	8.49	8.09	7.68	7.29	6.95	6.77	6.32	7.26		7.67	7.88	7.12	6.54	7.77	6.81	
<b>Matsumoto, Fuya (JPN) (1991)</b>	time	6.98	13.15	19.59	26.19	33.06	40.28	47.71	55.68	55.68	/ 5							
	reaction time	interval	6.17	6.44	6.60	6.87	7.22	7.43	7.97		# of strides	13.15	13.04	14.09	15.40	26.19	29.49	3.30
	velocity	7.16	8.10	7.76	7.58	7.28	6.93	6.73	6.27	7.18		7.60	7.67	7.10	6.49	7.64	6.78	
<b>Uesugi, Haruna (JPN) (1998)</b>	time	7.12	13.27	19.50	26.12	33.09	40.38	47.88	55.74	55.74	/ 6							
	reaction time	interval	6.15	6.23	6.62	6.97	7.29	7.50	7.86		# of strides	13.27	12.85	14.26	15.36	26.12	29.62	3.50
	velocity	7.02	8.13	8.03	7.55	7.17	6.86	6.67	6.36	7.18		7.54	7.78	7.01	6.51	7.66	6.75	
<b>Eda, Ryo (JPN) (1997)</b>	time	6.91	13.05	19.37	25.99	32.97	40.24	47.81	55.82	55.82	/ 7							
	reaction time	interval	6.14	6.32	6.62	6.98	7.27	7.57	8.01		# of strides	13.05	12.94	14.25	15.58	25.99	29.83	3.84
	velocity	7.24	8.14	7.91	7.55	7.16	6.88	6.61	6.24	7.17		7.66	7.73	7.02	6.42	7.70	6.70	
<b>Yoshida, Sayumi (JPN) (1997)</b>	time	7.34	13.44	19.72	26.35	33.26	40.39	47.94	55.97	55.97	/ 8							
	reaction time	interval	6.10	6.28	6.63	6.91	7.13	7.55	8.03		# of strides	13.44	12.91	14.04	15.58	26.35	29.62	3.27
	velocity	6.81	8.20	7.96	7.54	7.24	7.01	6.62	6.23	7.15		7.44	7.75	7.12	6.42	7.59	6.75	

**2015 Japanese National Championships (Niigata, JPN)****FINAL**

date 27-Jun-15

Kohei (2015) - 400m race analysis of male &amp; female at major 2015 competitions

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Aoki, Sayaka (JPN) (1986)</b>	time	6.84	12.66	18.72	25.00	31.71	38.57	45.58	53.05	53.05	5 / 1							
	reaction time	0.176	5.82	6.06	6.28	6.71	6.86	7.01	7.47	<b>PB</b>	# of strides	12.66	12.34	13.57	14.48	25.00	28.05	3.05
	velocity	7.31	8.59	8.25	7.96	7.45	7.29	7.13	6.69	7.54		200.0	7.90	8.10	7.37	6.91	8.00	7.13
<b>Fujisawa, Sayaka (JPN) (1991)</b>	time	6.73	12.36	18.18	24.44	31.18	38.19	45.39	53.14	53.14	7 / 2							
	reaction time	0.191	5.63	5.82	6.26	6.74	7.01	7.20	7.75	<b>PB</b>	# of strides	12.36	12.08	13.75	14.95	24.44	28.70	4.26
	velocity	7.43	8.88	8.59	7.99	7.42	7.13	6.94	6.45	7.53		201.0	8.09	8.28	7.27	6.69	8.18	6.97
<b>Ishizuka, Haruko (JPN) (1997)</b>	time	7.07	12.84	18.85	25.11	31.75	38.76	45.94	53.44	53.44	4 / 3							
	reaction time	0.272	5.77	6.01	6.26	6.64	7.01	7.18	7.50	<b>=PB</b>	# of strides	12.84	12.27	13.65	14.68	25.11	28.33	3.22
	velocity	7.07	8.67	8.32	7.99	7.53	7.13	6.96	6.67	7.49		200.5	7.79	8.15	7.33	6.81	7.96	7.06
<b>Takeishi, Konomi (JPN) (1991)</b>	time	6.85	12.67	18.72	25.09	31.97	39.05	46.18	53.58	53.58	8 / 4							
	reaction time	0.158	5.82	6.05	6.37	6.88	7.08	7.13	7.40	<b>PB</b>	# of strides	12.67	12.42	13.96	14.53	25.09	28.49	3.40
	velocity	7.30	8.59	8.26	7.85	7.27	7.06	7.01	6.76	7.47		196.5	7.89	8.05	7.16	6.88	7.97	7.02
<b>Chiba, Asami (JPN) (1985)</b>	time	6.85	12.71	18.79	25.07	31.87	38.83	45.97	53.65	53.65	9 / 5							
	reaction time	0.193	5.86	6.08	6.28	6.80	6.96	7.14	7.68		# of strides	12.71	12.36	13.76	14.82	25.07	28.58	3.51
	velocity	7.30	8.53	8.22	7.96	7.35	7.18	7.00	6.51	7.46		202.5	7.87	8.09	7.27	6.75	7.98	7.00
<b>Shintaku, Asami (JPN) (1994)</b>	time	7.07	13.03	19.05	25.21	31.77	38.53	45.68	53.78	53.78	6 / 6							
	reaction time	0.180	5.96	6.02	6.16	6.56	6.76	7.15	8.10	<b>PB</b>	# of strides	13.03	12.18	13.32	15.25	25.21	28.57	3.36
	velocity	7.07	8.39	8.31	8.12	7.62	7.40	6.99	6.17	7.44		221.2	7.67	8.21	7.51	6.56	7.93	7.00
<b>Sato, Hinako (JPN) (1996)</b>	time	7.17	12.95	18.95	25.20	31.76	38.82	46.13	54.00	54.00	2 / 7							
	reaction time	0.184	5.78	6.00	6.25	6.56	7.06	7.31	7.87	<b>PB</b>	# of strides	12.95	12.25	13.62	15.18	25.20	28.80	3.60
	velocity	6.97	8.65	8.33	8.00	7.62	7.08	6.84	6.35	7.41		7.72	8.16	7.34	6.59	7.94	6.94	
<b>Matsumoto, Nanako (JPN) (1991)</b>	time	7.23	13.15	19.20	25.55	32.37	39.48	46.70	54.31	54.31	3 / 8							
	reaction time	0.185	5.92	6.05	6.35	6.82	7.11	7.22	7.61		# of strides	13.15	12.40	13.93	14.83	25.55	28.76	3.21
	velocity	6.92	8.45	8.26	7.87	7.33	7.03	6.93	6.57	7.37		7.60	8.06	7.18	6.74	7.83	6.95	

**2015 NCAA Championships (Eugene, OR)****FINAL**

date 13-Jun-15

USTFCCCA (2017) - NCAA DI outdoor championship history

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Funderbunk, Kala (USA) (1991)</b>	time				26.0				51.7	51.67	8 / 1							
	reaction time								25.70		# of strides					26.00	25.70	-0.30
	velocity				7.69				7.78	7.74						7.69	7.78	
<b>Baisden, Kendall (USA) (1991)</b>	time				25.5				51.7	51.74	4 / 2							
	reaction time								26.20		# of strides					25.50	26.20	0.70
	velocity				7.84				7.63	7.73						7.84	7.63	
<b>Roberson, Daye Shon (USA) (1991)</b>	time				25.5				51.7	51.74	7 / 3							
	reaction time								26.20		# of strides					25.50	26.20	0.70
	velocity				7.84				7.63	7.73						7.84	7.63	

**2015 Asian Championships (Wuhan, CHN)****FINAL**

date 04-Jun-15

Yang (2019) - analysis of the characteristics of Yang Huizhen's running speed in 400m

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Yang Huizhen (CHN) (1992)</b>	time				25.08		38.09		52.37	52.37	1 / 1							
	reaction time						13.01		14.28	<b>PB</b>	# of strides			13.01	14.28	25.08	27.29	2.21
	velocity				7.97		7.69		7.00	7.64				7.69	7.00	7.97	7.33	

**2014 European Championships (Zurich, SUI)****FINAL**

date 15-Aug-14

Incalza (2014) - <https://www.youtube.com/watch?v=09I9yDmjZus&list=UU7691fXeyNFIMROfkJ-WWUg>

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Grenot, Libania (ITA) (1983)</b> time		11.95		23.49		36.30		51.10	51.10	3 / 1							
reaction time	0.180			11.54		12.81		14.80		# of strides			12.81	14.80	23.49	27.61	4.12
velocity		8.37		8.67		7.81		6.76	7.83				7.81	6.76	8.51	7.24	
<b>Zemlyak, Olha (UKR) (1990)</b> time	0.172			no information available					51.36	4 / 2							
<b>Terrero, Indira (ESP) (1985)</b> time	0.250			no information available					51.38	6 / 3							
<b>Ohuruogu, Christine (GBR)</b> time	0.170			no information available					51.38	5 / 4							
<b>Holub, Malgorzata (POL) (19)</b> time	0.177			no information available				<b>PB</b>	51.84	7 / 5							
<b>Razor, Bianca (ROU) (1994)</b> time	0.213			no information available					51.95	1 / 6							
<b>Gayot, Marie (FRA) (1989)</b> time	0.183			no information available					52.14	2 / 7							
<b>Bokesa, Aauri Lorena (ESP)</b> time	0.213			no information available					52.39	8 / 8							

## 2014 Japanese National High School Championships (Kofu, JPN)

## FINAL

date 30-Jul-14

Yanagiya (2014) - research on athlete performance and technique- 2014 data book

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Aoyama, Seika (JPN) (1996)</b> time	6.88	12.64	18.55	24.78	31.35	38.52	45.98	53.73	53.73	1 / 1							
reaction time		5.76	5.91	6.23	6.57	7.17	7.46	7.75		# of strides	12.64	12.14	13.74	15.21	24.78	28.95	4.17
velocity	7.27	8.68	8.46	8.03	7.61	6.97	6.70	6.45	7.44		7.91	8.24	7.28	6.57	8.07	6.91	
<b>Eguchi, Kotomi (JPN) (1997)</b> time	7.14	13.17	19.25	25.46	31.91	38.80	46.09	53.94	53.94	1 / 2							
reaction time		6.03	6.08	6.21	6.45	6.89	7.29	7.85		# of strides	13.17	12.29	13.34	15.14	25.46	28.48	3.02
velocity	7.00	8.29	8.22	8.05	7.75	7.26	6.86	6.37	7.42		7.59	8.14	7.50	6.61	7.86	7.02	
<b>Sato, Hinako (JPN) (1996)</b> time	7.18	13.25	19.25	25.49	32.06	39.08	46.57	54.63	54.63	1 / 3							
reaction time		6.07	6.00	6.24	6.57	7.02	7.49	8.06	<b>PB</b>	# of strides	13.25	12.24	13.59	15.55	25.49	29.14	3.65
velocity	6.96	8.24	8.33	8.01	7.61	7.12	6.68	6.20	7.32		7.55	8.17	7.36	6.43	7.85	6.86	
<b>Mori, Miyu (JPN)</b> time	7.01	13.10	19.35	25.83	32.49	39.71	47.05	54.79	54.79	1 / 4							
reaction time		6.09	6.25	6.48	6.66	7.22	7.34	7.74		# of strides	13.10	12.73	13.88	15.08	25.83	28.96	3.13
velocity	7.13	8.21	8.00	7.72	7.51	6.93	6.81	6.46	7.30		7.63	7.86	7.20	6.63	7.74	6.91	
<b>Iwata, Yuna (JPN) (1997)</b> time	7.29	13.53	19.74	26.07	32.72	39.71	47.09	55.00	55.00	1 / 5							
reaction time		6.24	6.21	6.33	6.65	6.99	7.38	7.91	<b>PB</b>	# of strides	13.53	12.54	13.64	15.29	26.07	28.93	2.86
velocity	6.86	8.01	8.05	7.90	7.52	7.15	6.78	6.32	7.27		7.39	7.97	7.33	6.54	7.67	6.91	
<b>Kimoto, Ayana (JPN) (1996)</b> time	7.45	13.59	19.89	26.17	32.79	39.85	47.15	55.11	55.11	1 / 6							
reaction time		6.14	6.30	6.28	6.62	7.06	7.30	7.96		# of strides	13.59	12.58	13.68	15.26	26.17	28.94	2.77
velocity	6.71	8.14	7.94	7.96	7.55	7.08	6.85	6.28	7.26		7.36	7.95	7.31	6.55	7.64	6.91	
<b>Okuda, Masumi (JPN) (1996)</b> time	7.39	13.56	19.65	26.03	32.78	39.95	47.63	56.10	56.10	1 / 7							
reaction time		6.17	6.09	6.38	6.75	7.17	7.68	8.47		# of strides	13.56	12.47	13.92	16.15	26.03	30.07	4.04
velocity	6.77	8.10	8.21	7.84	7.41	6.97	6.51	5.90	7.13		7.37	8.02	7.18	6.19	7.68	6.65	
<b>Kyoya, Yuka (JPN) (1997)</b> time	7.50	13.81	20.12	26.60	33.49	40.86	48.87	57.28	57.28	1 / 8							
reaction time		6.31	6.31	6.48	6.89	7.37	8.01	8.41	<b>PB</b>	# of strides	13.81	12.79	14.26	16.42	26.60	30.68	4.08
velocity	6.67	7.92	7.92	7.72	7.26	6.78	6.24	5.95	6.98		7.24	7.82	7.01	6.09	7.52	6.52	

## 2014 NCAA Championships (Eugene, OR)

## FINAL

date 13-Jun-14

USTFCCA (2017) - NCAA DI outdoor championship history

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Okolo, Courtney (USA) (199)</b> time				24.1				50.2	50.23	4 / 1							
reaction time								26.10		# of strides					24.10	26.10	2.00
velocity				8.30				7.66	7.96						8.30	7.66	
<b>Francis, Phyllis (USA) (1992)</b> time				24.1				50.6	50.59	8 / 2							
reaction time								26.50	<b>PB</b>	# of strides					24.10	26.50	2.40
velocity				8.30				7.55	7.91						8.30	7.55	
<b>Baisden, Kendall (USA) (199)</b> time				24.4				51.3	51.32	7 / 3							
reaction time								26.90		# of strides					24.40	26.90	2.50
velocity				8.20				7.43	7.79						8.20	7.43	

## 2013 IAAF World Championships (Moscow, RUS)

## FINAL

date 12-Aug-13

(2013) - <http://speedendurance.com/2013/10/07/racing-400-meters-differences-in-elite-men-and-women/>

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Ohuruogu, Christine (GBR)</b> time				23.8		35.7		49.0	49.41	4 / 1							
reaction time	0.247					11.9		13.3	<b>NR</b>	# of strides			11.90	13.30	23.80	25.20	1.40
velocity				8.40		8.40		7.52	8.10				8.40	7.52	8.40	7.94	
<b>Montsho, Amantle (BOT) (19)</b> time				23.4		35.0		48.7	49.41	5 / 2							
reaction time	0.273					11.6		13.7		# of strides			11.60	13.70	23.40	25.30	1.90
velocity				8.55		8.62		7.30	8.10				8.62	7.30	8.55	7.91	
<b>Krivoshapka, Antonia (RUS)</b> time				23.5		36.0		49.0	49.78	8 / 3							
reaction time	0.209					12.5		13.0		# of strides			12.50	13.00	23.50	25.50	2.00
velocity				8.51		8.00		7.69	8.04				8.00	7.69	8.51	7.84	
<b>McPherson, Stephenie (JAM)</b> time				23.7		36.0		49.6	49.99	2 / 4							
reaction time	0.198					12.3		13.6		# of strides			12.30	13.60	23.70	25.90	2.20
velocity				8.44		8.13		7.35	8.00				8.13	7.35	8.44	7.72	
<b>Hastings, Natasha (USA) (19)</b> time				23.5		36.3		50.5	50.30	3 / 5							
reaction time	0.163					12.8		14.2		# of strides			12.80	14.20	23.50	27.00	3.50
velocity				8.51		7.81		7.04	7.95				7.81	7.04	8.51	7.41	
<b>McCorory, Francena (USA)</b> time				23.3		35.7		50.7	50.68	6 / 6							

reaction time	0.241	interval			12.4	15.0		# of strides		12.40	15.00	23.30	27.40	4.10
velocity					8.58	8.06	6.67	7.89		8.06	6.67	8.58	7.30	
<b>Ryzhova, Kseniya (RUS) (19)</b>	time		23.6	36.3	51.0	50.98		7 / 7						
reaction time	0.195	interval			12.7	14.7		# of strides		12.70	14.70	23.60	27.40	3.80
velocity			8.47	7.87	6.80	7.85				7.87	6.80	8.47	7.30	
<b>Williams-Mills, Novlene (JAN)</b>	time		24.3	37.1	51.5	51.49		1 / 8						
reaction time	0.276	interval			12.8	14.4		# of strides		12.80	14.40	24.30	27.20	2.90
velocity			8.23	7.81	6.94	7.77				7.81	6.94	8.23	7.35	

## 2013 Japanese National High School Championships (Oita, JPN)

Yanagiya (2014) - research on athlete performance and technique- 2014 data book

## FINAL

date 30-Jul-13

Matsuo (2013) - 66th high school championships: JAF scientific committee - biomechanics data collection

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Oki, Sayaka (JPN) (1995)</b>	time	7.05	13.48	19.89	26.27	32.80	39.58	46.47	53.66	53.66	4 / 1							
reaction time	interval		6.43	6.41	6.38	6.53	6.78	6.89	7.19		# of strides	13.48	12.79	13.31	14.08	26.27	27.39	1.12
velocity		7.09	7.78	7.80	7.84	7.66	7.37	7.26	6.95	7.45		7.42	7.82	7.51	7.10	7.61	7.30	
<b>Sugiura, Haruka (JPN) (1995)</b>	time		13.17		26.10		39.55		54.10	54.10	6 / 2							Matsuo (2013)
reaction time	interval				12.93		13.45		14.55		# of strides	13.17	12.93	13.45	14.55	26.10	28.00	1.90
velocity			7.59		7.73		7.43		6.87	7.39		7.59	7.73	7.43	6.87	7.66	7.14	
<b>Jingbo, Yuki (JPN) (1995)</b>	time		13.47		26.53		39.98		54.24	54.24	9 / 3							Matsuo (2013)
reaction time	interval				13.06		13.45		14.26		# of strides	13.47	13.06	13.45	14.26	26.53	27.71	1.18
velocity			7.42		7.66		7.43		7.01	7.37		7.42	7.66	7.43	7.01	7.54	7.22	
<b>Aoyama, Seika (JPN) (1996)</b>	time		13.50		26.70		40.12		54.24	54.24	7 / 4							Matsuo (2013)
reaction time	interval				13.20		13.42		14.12		# of strides	13.50	13.20	13.42	14.12	26.70	27.54	0.84
velocity			7.41		7.58		7.45		7.08	7.37		7.41	7.58	7.45	7.08	7.49	7.26	
<b>Matsumoto, Nanako (JPN) (1995)</b>	time		13.50		26.47		39.97		54.81	54.81	5 / 5							Matsuo (2013)
reaction time	interval				12.97		13.50		14.84		# of strides	13.50	12.97	13.50	14.84	26.47	28.34	1.87
velocity			7.41		7.71		7.41		6.74	7.30		7.41	7.71	7.41	6.74	7.56	7.06	
<b>Kikuchi, Ruina (JPN) (1995)</b>	time		13.48		26.57		40.27		55.42	55.42	3 / 6							Matsuo (2013)
reaction time	interval				13.09		13.70		15.15	PB	# of strides	13.48	13.09	13.70	15.15	26.57	28.85	2.28
velocity			7.42		7.64		7.30		6.60	7.22		7.42	7.64	7.30	6.60	7.53	6.93	
<b>Dezuka, Chie (JPN)</b>	time		13.57		26.50		40.03		55.74	55.74	8 / 7							Matsuo (2013)
reaction time	interval				12.93		13.53		15.71		# of strides	13.57	12.93	13.53	15.71	26.50	29.24	2.74
velocity			7.37		7.73		7.39		6.37	7.18		7.37	7.73	7.39	6.37	7.55	6.84	
<b>Okamoto, Yuna (CHN) (1995)</b>	time		13.60		26.80		40.83		56.06	56.06	2 / 8							Matsuo (2013)
reaction time	interval				13.20		14.03		15.23		# of strides	13.60	13.20	14.03	15.23	26.80	29.26	2.46
velocity			7.35		7.58		7.13		6.57	7.14		7.35	7.58	7.13	6.57	7.46	6.84	

## 2013 Japanese National Championships (Chofu, JPN)

Kota (2017) - 70th high school championships: JAF scientific committee - biomechanics data collection

## FINAL

date 08-Jun-13

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Sugiura, Haruka (JPN) (1995)</b>	time	7.00	12.94	19.09	25.31	31.60	38.22	45.18	52.52	52.52	5 / 1							
reaction time	interval		5.94	6.15	6.22	6.29	6.62	6.96	7.34	PB	# of strides	12.94	12.37	12.91	14.30	25.31	27.21	1.90
velocity		7.14	8.42	8.13	8.04	7.95	7.55	7.18	6.81	7.62		211.0	7.73	8.08	7.75	6.99	7.90	7.35

## 2012 Olympic Games (London, GBR)

Butler (2016) - IAAF statistics handbook- special edition: Games of the XXXI Olympiad- Rio 2016

## FINAL

date 05-Aug-12

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Richards-Ross, Sanya (USA)</b>	time		11.9		23.7		36.0		49.6	49.55	6 / 1							
reaction time	0.189				11.80		12.30		13.60		# of strides	11.90	11.80	12.30	13.60	23.70	25.90	2.20
velocity			8.40		8.47		8.13		7.35	8.07		190.5	8.40	8.47	8.13	7.35	8.44	7.72
<b>Ohuruogu, Christine (GBR)</b>	time		12.2		23.9		36.2		49.7	49.70	8 / 2							
reaction time	0.174				11.70		12.30		13.50		# of strides	12.20	11.70	12.30	13.50	23.90	25.80	1.90
velocity			8.20		8.55		8.13		7.41	8.05		183.0	8.20	8.55	8.13	7.41	8.37	7.75
<b>Trotter, Deedee (USA) (1982)</b>	time		12.1		23.7		35.9		49.7	49.72	4 / 3							
reaction time	0.167				11.60		12.20		13.80		# of strides	12.10	11.60	12.20	13.80	23.70	26.00	2.30
velocity			8.26		8.62		8.20		7.25	8.05		187.5	8.26	8.62	8.20	7.25	8.44	7.69
<b>Montsho, Amantie (BOT) (19)</b>	time		12.2		23.9		36.3		49.8	49.75	7 / 4							
reaction time	0.198				11.70		12.40		13.50		# of strides	12.20	11.70	12.40	13.50	23.90	25.90	2.00
velocity			8.20		8.55		8.06		7.41	8.04		182.0	8.20	8.55	8.06	7.41	8.37	7.72
<b>Williams-Mills, Novlene (JAN)</b>	time		12.2		24.1		36.6		50.1	50.11	2 / 5							
reaction time	0.258				11.90		12.50		13.50		# of strides	12.20	11.90	12.50	13.50	24.10	26.00	1.90
velocity			8.20		8.40		8.00		7.41	7.98		192.0	8.20	8.40	8.00	7.41	8.30	7.69
<b>Krivoshapka, Antonia (RUS)</b>	time		11.8		23.2		35.8		50.2	50.17	5 / 6							
reaction time	0.175				11.40		12.60		14.40	DV	# of strides	11.80	11.40	12.60	14.40	23.20	27.00	3.80
velocity			8.47		8.77		7.94		6.94	7.97		199.5	8.47	8.77	7.94	6.94	8.62	7.41
<b>McCormory, Francena (USA)</b>	time		12.2		23.8		35.8		50.3	50.33	9 / 6							
reaction time	0.196				11.60		12.00		14.50		# of strides	12.20	11.60	12.00	14.50	23.80	26.50	2.70
velocity			8.20		8.62		8.33		6.90	7.95		189.7	8.20	8.62	8.33	6.90	8.40	7.55
<b>Whyte, Rosemarie (JAM) (19)</b>	time		12.1		23.9		36.9		50.8	50.79	3 / 7							
reaction time	0.184				11.80		13.00		13.90		# of strides	12.10	11.80	13.00	13.90	23.90	26.90	3.00
velocity			8.26		8.47		7.69		7.19	7.88		187.0	8.26	8.47	7.69	7.19	8.37	7.43



Semi-Final 2		date		04-Aug-12		Hadley (2012) - uka 2012 olympic games report: 400m, 4x 400m													
	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential		
<b>Montsho, Amantle (BOT) (1)</b>	time			23.45		36.06		50.15	50.15	5 / 1									
	reaction time	0.205	interval			12.61		14.09		# of strides				12.61	14.09	23.45	26.70		
	velocity			8.53		7.93		7.10	7.98	184.0				7.93	7.10	8.53	7.49		

Semi-Final 1		date		04-Aug-12		Hadley (2012) - uka 2012 olympic games report: 400m, 4x 400m													
	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential		
<b>Richards-Ross, Sanya (USA)</b>	time			23.25		35.97		50.07	50.07	4 / 1									
	reaction time	0.149	interval			12.72		14.10		# of strides				12.72	14.10	23.25	26.82		
	velocity			8.60		7.86		7.09	7.99	189.7				7.86	7.09	8.60	7.46		

Heat 7		date		03-Aug-12		Hadley (2012) - uka 2012 olympic games report: 400m, 4x 400m													
	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential		
<b>George, Regina (NGR) (1991)</b>	time			23.54				51.24	51.24	6 / 1									
	reaction time	0.175	interval					27.70		# of strides					23.54	27.70	4.16		
	velocity			8.50				7.22	7.81	193.0				8.50	7.22				

### 2012 Japanese National High School Championships (Niigata, JPN)

FINAL		date		29-Jul-12		Yasunori (2012) - 65th high school championships: JAF scientific committee - biomechanics data collection													
	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential		
<b>Okii, Sayaka (JPN) (1995)</b>	time	12.93		25.38		39.14		54.31	54.31	6 / 1									
	reaction time			12.45		13.76		15.17		# of strides				12.93	12.45	13.76	15.17		
	interval													7.73	8.03	7.27	6.59		
	velocity	7.73		8.03		7.27		6.59	7.37					7.73	8.03	7.27	6.59		
<b>Jingbo, Yuki (JPN) (1995)</b>	time	13.22		26.01		39.96		54.84	54.84	5 / 2									
	reaction time			12.79		13.95		14.88		# of strides				13.22	12.79	13.95	14.88		
	interval													7.56	7.82	7.17	6.72		
	velocity	7.56		7.82		7.17		6.72	7.29					7.56	7.82	7.17	6.72		
<b>Shiranaga, Yumiko (JPN) (19)</b>	time	13.34		26.30		40.12		55.47	55.47	7 / 3									
	reaction time			12.96		13.82		15.35		# of strides				13.34	12.96	13.82	15.35		
	interval													7.50	7.72	7.24	6.51		
	velocity	7.50		7.72		7.24		6.51	7.21					7.50	7.72	7.24	6.51		
<b>Fukuzato, Akiho (JPN) (1994)</b>	time	13.53		26.86		40.55		55.49	55.49	8 / 4									
	reaction time			13.33		13.69		14.94		# of strides				13.53	13.33	13.69	14.94		
	interval													7.39	7.50	7.30	6.69		
	velocity	7.39		7.50		7.30		6.69	7.21					7.39	7.50	7.30	6.69		
<b>Sugiura, Haruka (JPN) (1995)</b>	time	13.33		25.99		40.01		55.90	55.90	2 / 5									
	reaction time			12.66		14.02		15.89		# of strides				13.33	12.66	14.02	15.89		
	interval													7.50	7.90	7.13	6.29		
	velocity	7.50		7.90		7.13		6.29	7.16					7.50	7.90	7.13	6.29		
<b>Matsumoto, Nanako (JPN) (19)</b>	time	14.16		27.31		41.05		56.10	56.10	4 / 6									
	reaction time			13.15		13.74		15.05		# of strides				14.16	13.15	13.74	15.05		
	interval													7.06	7.60	7.28	6.64		
	velocity	7.06		7.60		7.28		6.64	7.13					7.06	7.60	7.28	6.64		
<b>Tsuboura, Ryoko (JPN) (199)</b>	time	13.38		26.53		40.71		56.42	56.42	3 / 7									
	reaction time			13.15		14.18		15.71		# of strides				13.38	13.15	14.18	15.71		
	interval													7.47	7.60	7.05	6.37		
	velocity	7.47		7.60		7.05		6.37	7.09					7.47	7.60	7.05	6.37		
<b>Takisawa, Aya (JPN) (1994)</b>	time	13.50		26.99		41.13		56.56	56.56	9 / 8									
	reaction time			13.49		14.14		15.43		# of strides				13.50	13.49	14.14	15.43		
	interval													7.41	7.41	7.07	6.48		
	velocity	7.41		7.41		7.07		6.48	7.07					7.41	7.41	7.07	6.48		

### 2012 USA Olympic Trials (Eugene, OR)

FINAL		date		24-Jun-12		Hymans (2020) - history of the US olympic trials - track and field													
	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential		
<b>Richards-Ross, Sanya (USA)</b>	time			23.8		36.1		49.28	49.28	5 / 1									
	reaction time	0.232	interval			12.30		13.18		# of strides				23.80	12.30	13.18	23.80		
	velocity			8.40		8.13		7.59	8.12					4.20	8.13	7.59	8.40		
<b>Trotter, Deedee (USA) (1982)</b>	time			24.3		36.5		50.02	50.02	7 / 2									
	reaction time	0.269	interval			12.20		13.52		# of strides				24.30	12.20	13.52	24.30		
	velocity			8.23		8.20		7.40	8.00					4.12	8.20	7.40	8.23		
<b>McCorory, Francena (USA) (19)</b>	time			23.5		36.0		50.43	50.43	6 / 3									
	reaction time	0.259	interval			12.50		14.43		# of strides				23.50	12.50	14.43	23.50		
	velocity			8.51		8.00		6.93	7.93					4.26	8.00	6.93	8.51		
<b>Dunn, Debbie (USA) (1978)</b>	time			23.7		36.3		50.78	50.78	4 / 4									
	reaction time	0.198	interval			12.60		14.48	<b>DV</b>	# of strides				23.70	12.60	14.48	23.70		
	velocity			8.44		7.94		6.91	7.88					4.22	7.94	6.91	8.44		
<b>Dixon, Diamond (USA) (1992)</b>	time			24.3		36.9		50.88	50.88	8 / 5									
	reaction time	0.340	interval			12.60		13.98	<b>PB</b>	# of strides				24.30	12.60	13.98	24.30		
	velocity			8.23		7.94		7.15	7.86					4.12	7.94	7.15	8.23		
<b>Baker, Keshia (USA) (1988)</b>	time			24.2		36.7		51.23	51.23	1 / 5									
	reaction time	0.273	interval			12.50		14.53		# of strides				24.20	12.50	14.53	24.20		
	velocity			8.26		8.00		6.88	7.81					4.13	8.00	6.88	8.26		
<b>Hastings, Natasha (USA) (19)</b>	time			23.9		36.5		51.28	51.28	3 / 6									
	reaction time	0.200	interval			12.60		14.78		# of strides				23.90	12.60	14.78	23.90		
	velocity			8.37		7.94		6.77	7.80					4.18	7.94	6.77	8.37		
<b>Beard, Jessica (USA) (1989)</b>	time			24.1		36.8		51.52	51.52	2 / 7									
	reaction time	0.264	interval			12.70		14.72		# of strides				24.10	12.70	14.72	24.10		

velocity	8.30	7.87	6.79	7.76	4.15	7.87	6.79	8.30	7.29
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## 2011 IAAF World Championships (Daegu, KOR)

## FINAL

date 29-Aug-11

Butler (2013) - IAAF world athletic results 2008-2011 full results

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Montsho, Amantle (BOT) (11)</b> time				23.3		35.7		49.56	49.56	4 / 1							
reaction time						12.4		13.9	NR	# of strides			12.40	13.86	23.30	26.26	2.96
interval																	
velocity				8.58		8.06		7.22	8.07	183.5			8.06	7.22	8.58	7.62	
<b>Felix, Allyson (USA) (1985)</b> time				23.4		35.9		49.59	49.59	3 / 2							
reaction time						12.5		13.7		# of strides			12.50	13.69	23.40	26.19	2.79
interval																	
velocity				8.55		8.00		7.30	8.07	175.7			8.00	7.30	8.55	7.64	
<b>Kapachinskaya, Anastasiya ( time</b>				23.8		36.3		50.24	50.24	6 / 3							
reaction time						12.5		13.9		# of strides			12.50	13.94	23.80	26.44	2.64
interval																	
velocity				8.40		8.00		7.17	7.96	194.0			8.00	7.17	8.40	7.56	
<b>McCorory, Francena (USA) ( time</b>				23.7		36.1		50.45	50.45	5 / 4							
reaction time						12.4		14.4		# of strides			12.40	14.35	23.70	26.75	3.05
interval																	
velocity				8.44		8.06		6.97	7.93	185.0			8.06	6.97	8.44	7.48	
<b>Krivoshapka, Antonia (RUS) time</b>				23.7		36.6		50.66	50.66	2 / 5							
reaction time						12.9		14.1		# of strides			12.90	14.06	23.70	26.96	3.26
interval																	
velocity				8.44		7.75		7.11	7.90	199.0			7.75	7.11	8.44	7.42	
<b>Williams, Shericka (JAM) (19 time</b>				24.3		36.7		50.79	50.79	7 / 6							
reaction time						12.4		14.1		# of strides			12.40	14.09	24.30	26.49	2.19
interval																	
velocity				8.23		8.06		7.10	7.88				8.06	7.10	8.23	7.55	
<b>Richards-Ross, Sanya (USA) time</b>				24.1		36.8		51.32	51.32	1 / 7							
reaction time						12.7		14.5		# of strides			12.70	14.52	24.10	27.22	3.12
interval																	
velocity				8.30		7.87		6.89	7.79	188.0			7.87	6.89	8.30	7.35	
<b>Williams-Mills, Novlene (JAN time</b>				23.5		36.3		52.89	52.89	8 / 8							
reaction time						12.8		16.6		# of strides			12.80	16.59	23.50	29.39	5.89
interval																	
velocity				8.51		7.81		6.03	7.56				7.81	6.03	8.51	6.81	

## 2011 Japanese National High School Championships (Okinawa, JPN)

## FINAL

date 03-Aug-11

Abe (2011) - 64th high school championships: JAF scientific committee - biomechanics data collection

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Shimada, Manayu (JPN) (199 time</b>		13.33		26.78		39.68		54.88	54.88	6 / 1							
reaction time						13.45		12.90		# of strides			13.33	13.45	12.90	15.20	26.78
interval																	
velocity				7.50		7.43		7.75	7.29				7.50	7.43	7.75	6.58	7.47
<b>Nagura, Chiaki (JPN) (1993) time</b>		13.13		26.18		39.68		54.96	54.96	5 / 2							
reaction time						13.05		15.28		# of strides			13.13	13.05	13.50	15.28	26.18
interval																	
velocity				7.62		7.66		7.41	7.28				7.62	7.66	7.41	6.54	7.64
<b>Ikejima, Shoko (JPN) (1994) time</b>		13.09		26.17		40.63		55.26	55.26	4 / 3							
reaction time						13.08		14.63		# of strides			13.09	13.08	14.46	14.63	26.17
interval																	
velocity				7.64		7.65		6.92	7.24				7.64	7.65	6.92	6.84	7.64
<b>Yamamoto, Mizuki (JPN) (19 time</b>		13.69		27.20		40.70		55.42	55.42	7 / 4							
reaction time						13.51		14.72		# of strides			13.69	13.51	13.50	14.72	27.20
interval																	
velocity				7.30		7.40		7.41	7.22				7.30	7.40	7.41	6.79	7.35
<b>Odagaki, Aki (JPN) (1993) time</b>		13.38		26.98		41.28		55.52	55.52	3 / 5							
reaction time						13.60		14.24		# of strides			13.38	13.60	14.30	14.24	26.98
interval																	
velocity				7.47		7.35		6.99	7.20				7.47	7.35	6.99	7.02	7.41
<b>Nishida, Ayaka (JPN) (1993) time</b>		13.28		26.65		40.22		55.52	55.52	2 / 6							
reaction time						13.37		15.30		# of strides			13.28	13.37	13.57	15.30	26.65
interval																	
velocity				7.53		7.48		7.37	7.20				7.53	7.48	7.37	6.54	7.50
<b>Nagura, Ayaka (JPN) (1994) time</b>		13.65		26.93		40.70		55.63	55.63	8 / 7							
reaction time						13.28		14.93		# of strides			13.65	13.28	13.77	14.93	26.93
interval																	
velocity				7.33		7.53		7.26	7.19				7.33	7.53	7.26	6.70	7.43
<b>Shintaku, Asami (JPN) (1994 time</b>		13.58		27.10		40.77		57.56	57.56	9 / 8							
reaction time						13.52		16.79		# of strides			13.58	13.52	13.67	16.79	27.10
interval																	
velocity				7.36		7.40		7.32	6.95				7.36	7.40	7.32	5.96	7.38

## 2010 Japanese National High School Championships (Okinawa, JPN)

## FINAL

date 29-Jul-10

Matsuo (2010) - 63rd high school championships: JAF scientific committee - biomechanics data collection

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Hasegawa, Misato (JPN) (19 time</b>		7.22		13.26		19.52		26.03	32.82	39.71	47.05	55.05					
reaction time						6.04		6.26	6.51	6.79	6.89	7.34	8.00				
interval																	
velocity				6.93		8.28		7.99	7.68	7.36	7.26	6.81	6.25				
<b>Ueyama, Misaki (JPN) (1992) time</b>		7.20		13.30		19.57		25.98	32.69	39.84	47.33	55.52					
reaction time						6.10		6.27	6.41	6.71	7.15	7.49	8.19				
interval																	
velocity				6.94		8.20		7.97	7.80	7.45	6.99	6.68	6.11				
<b>Saito, Erika (JPN) (1992) time</b>		7.10		13.32		19.82		26.47	33.29	40.39	47.89	55.93					
reaction time						6.22		6.50	6.65	6.82	7.10	7.50	8.04				
interval																	
velocity				7.04		8.04		7.69	7.52	7.33	7.04	6.67	6.22				

**2010 European Championships (Barcelona, ESP)****Heat 3**

date 28-Jul-10

*Le Bras (2013) - analyse de la performance et conception de dispositifs d'entraînement*

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Hurtis, Muriel (FRA) (1979)</b> time		12.2		24.1		36.8		52.0	51.97	/ 3							
reaction time				12.0		12.6		15.2		# of strides	12.15	11.97	12.63	15.20	24.12	27.83	3.71
interval																	
velocity		8.23		8.35		7.92		6.58	7.70		8.23	8.35	7.92	6.58	8.29	7.19	

**2009 Chinese National Games (Jinan, CHN)****FINAL**

date 22-Oct-09

*Wang (2012) - Research on the analysis of the speed distribution of China's outstanding female 400-meter runners*

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Huang Xiaoxiao (CHN) (1983)</b> time		12.45		24.58		38.14		52.23	52.23	/ 1							
reaction time				12.13		13.56		14.09		# of strides	12.45	12.13	13.56	14.09	24.58	27.65	3.07
interval																	
velocity		8.03		8.24		7.37		7.10	7.66		8.03	8.24	7.37	7.10	8.14	7.23	

**2009 Memorial Van Damme (Brussels, BEL)****FINAL**

date 04-Sep-09

*Vazel (2011) - speed reserve in the 400m*

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Richards, Sanya (USA) (1985)</b> time		12.0		23.9		36.0		48.8	48.83	/ 1							
reaction time				11.9		12.1		12.8		# of strides	12.00	11.90	12.10	12.80	23.90	24.90	1.00
interval																	
velocity		8.33		8.40		8.26		7.81	8.19		8.33	8.40	8.26	7.81	8.37	8.03	

**2009 Weltklasse (Zurich, SUI)****FINAL**

date 28-Aug-09

*Vazel (2011) - speed reserve in the 400m*

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Richards, Sanya (USA) (1985)</b> time		12.0		24.0		36.0		48.9	48.94	/ 1							
reaction time				12.0		12.0		12.9		# of strides	12.00	12.00	12.00	12.90	24.00	24.90	0.90
interval																	
velocity		8.33		8.33		8.33		7.75	8.17		8.33	8.33	8.33	7.75	8.33	8.03	

**2009 IAAF World Championships (Berlin, GER)****FINAL**

date 18-Aug-09

*Graubner (2009) - biomechanical analyses at the 12th IAAF world championships**Graubner (2011) - biomechanical analysis of the sprint and hurdle events at the 2009 IAAF world championships in athletics*

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Richards, Sanya (USA) (1985)</b> time	6.34	11.81	17.51	23.50	29.49	35.62	41.99	49.00	49.00	3 / 1							<i>Graubner (2011)</i>
reaction time		5.47	5.70	5.99	5.99	6.13	6.37	7.01		# of strides	11.81	11.69	12.12	13.38	23.50	25.50	2.00
interval																	
velocity		7.89	9.14	8.77	8.35	8.35	8.16	7.85	8.16	187.7	8.47	8.55	8.25	7.47	8.51	7.84	
<b>Williams, Shericka (JAM) (19)</b> time	6.59	12.07	17.77	23.76	29.82	36.00	42.38	49.32	49.32	4 / 2							<i>Graubner (2011)</i>
reaction time		5.48	5.70	5.99	6.06	6.18	6.38	6.94	<b>PB</b>	# of strides	12.07	11.69	12.24	13.32	23.76	25.56	1.80
interval																	
velocity		7.59	9.12	8.77	8.35	8.25	8.09	7.84	8.11	197.5	8.29	8.55	8.17	7.51	8.42	7.82	
<b>Krivoshapka, Antonina (RU)</b> time		12.13		23.59		35.90		49.71	49.71	5 / 3							<i>Graubner (2009)</i>
reaction time				11.46		12.31		13.81		# of strides	12.13	11.46	12.31	13.81	23.59	26.12	2.53
interval																	
velocity		8.24		8.73		8.12		7.24	8.05	199.5	8.24	8.73	8.12	7.24	8.48	7.66	
<b>Williams-Mills, Novlene (JAM)</b> time	6.72	12.36	18.11	24.00	29.97	36.18	42.67	49.77	49.77	6 / 4							<i>Graubner (2011)</i>
reaction time		5.64	5.75	5.89	5.97	6.21	6.49	7.10		# of strides	12.36	11.64	12.18	13.59	24.00	25.77	1.77
interval																	
velocity		7.44	8.87	8.70	8.49	8.38	8.05	7.70	8.04	197.0	8.09	8.59	8.21	7.36	8.33	7.76	
<b>Ohuruogu, Christine (GBR)</b> time		12.56		24.32		36.76		50.21	50.21	7 / 5							<i>Graubner (2009)</i>
reaction time				11.76		12.44		13.45		# of strides	12.56	11.76	12.44	13.45	24.32	25.89	1.57
interval																	
velocity		7.96		8.50		8.04		7.43	7.97	184.2	7.96	8.50	8.04	7.43	8.22	7.72	
<b>Dunn, Debbie (USA) (1978)</b> time		12.19		23.94		36.49		50.35	50.35	1 / 6							<i>Graubner (2009)</i>
reaction time				11.75		12.55		13.86		# of strides	12.19	11.75	12.55	13.86	23.94	26.41	2.47
interval																	
velocity		8.20		8.51		7.97		7.22	7.94	197.2	8.20	8.51	7.97	7.22	8.35	7.57	
<b>Kapachinskaya, Anastasiya (RUS)</b> time		12.54		24.39		36.92		50.53	50.53	2 / 7							<i>Graubner (2009)</i>
reaction time				11.85		12.53		13.61		# of strides	12.54	11.85	12.53	13.61	24.39	26.14	1.75
interval																	
velocity		7.97		8.44		7.98		7.35	7.92	194.0	7.97	8.44	7.98	7.35	8.20	7.65	
<b>Montsho, Amantle (BOT) (1)</b> time		12.38		24.47		37.05		50.65	50.65	8 / 8							<i>Graubner (2009)</i>
reaction time				12.09		12.58		13.60		# of strides	12.38	12.09	12.58	13.60	24.47	26.18	1.71
interval																	
velocity		8.08		8.27		7.95		7.35	7.90	178.0	8.08	8.27	7.95	7.35	8.17	7.64	

**Semi-Final 3**

date 16-Aug-09

*Graubner (2009) - biomechanical analyses at the 12th IAAF world championships*

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Richards, Sanya (USA) (1985)</b> time		12.08		24.15		36.41		50.21	50.21	3 / 1							
reaction time				12.07		12.26		13.80		# of strides	12.08	12.07	12.26	13.80	24.15	26.06	1.91
interval																	
velocity		8.28		8.29		8.16		7.25	7.97		8.28	8.29	8.16	7.25	8.28	7.67	
<b>Ohuruogu, Christine (GBR)</b> time		12.51		24.43		36.92		50.35	50.35	4 / 2							
reaction time				11.92		12.49		13.43		# of strides	12.51	11.92	12.49	13.43	24.43	25.92	1.49
interval																	
velocity		7.99		8.39		8.01		7.45	7.94		7.99	8.39	8.01	7.45	8.19	7.72	
<b>Litvinova, Lyudmila (RUS) (1)</b> time		12.50		24.24		36.86		50.52	50.52	6 / 3							
reaction time				11.74		12.62		13.66		# of strides	12.50	11.74	12.62	13.66	24.24	26.28	2.04
interval																	
velocity		8.00		8.52		7.92		7.32	7.92		8.00	8.52	7.92	7.32	8.25	7.61	
<b>Grenot, Libania (ITA) (1983)</b> time		12.82		25.02		37.37		50.85	50.85	5 / 4							
reaction time				12.20		12.35		13.48		# of strides	12.82	12.20	12.35	13.48	25.02	25.83	0.81
interval																	
velocity		7.80		8.20		8.10		7.42	7.87		7.80	8.20	8.10	7.42	7.99	7.74	
<b>Terrero, Indira (CUB) (1985)</b> time		12.73		24.77		37.46		51.87	51.87	7 / 5							
reaction time				12.04		12.69		14.41		# of strides	12.73	12.04	12.69	14.41	24.77	27.10	2.33
interval																	
velocity		7.86															



reaction time	0.210	interval			12.34	12.84	14.24		# of strides	12.56	12.34	12.84	14.24	24.90	27.08	2.18			
velocity			7.96	8.10	7.79	7.02	7.70			7.96	8.10	7.79	7.02	8.03	7.39				
<b>Ponteen, Tiandra (SKN) (198)</b>	time		12.16	23.83	37.28	53.22	53.22		1 / 7										
reaction time	0.162	interval		11.67	13.45	15.94		# of strides	12.16	11.67	13.45	15.94	23.83	29.39	5.56				
velocity			8.22	8.57	7.43	6.27	7.52		8.22	8.57	7.43	6.27	8.39	6.81					
<b>Day, Christine (JAM) (1986)</b>	time		12.42	24.37	37.60	53.46	53.46		2 / 8										
reaction time	0.177	interval		11.95	13.23	15.86		# of strides	12.42	11.95	13.23	15.86	24.37	29.09	4.72				
velocity			8.05	8.37	7.56	6.31	7.48		8.05	8.37	7.56	6.31	8.21	6.88					
<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>																			
<b>Semi-Final 2</b>	date	16-Aug-09	<i>Graubner (2011) - biomechanical analysis of the sprint and hurdle events at the 2009 IAAF world championships in athletics</i>																
			50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Williams, Shericka (JAM) (19)</b>	time		12.30			24.05		36.20		49.51	49.51	4 / 1							
reaction time	0.208	interval				11.75		12.15		13.31	PB	# of strides	12.30	11.75	12.15	13.31	24.05	25.46	1.41
velocity			8.13			8.51		8.23		7.51	8.08		8.13	8.51	8.23	7.51	8.32	7.86	
<b>Krivoshapka, Antonina (RUS)</b>	time		6.69	12.26	17.89	23.76	29.81	36.11	42.70	49.67	49.67	5 / 2							<i>Graubner (2011)</i>
reaction time	0.180	interval		5.57	5.63	5.87	6.05	6.30	6.59	6.97		# of strides	12.26	11.50	12.35	13.56	23.76	25.91	2.15
velocity			7.47	8.98	8.88	8.52	8.26	7.94	7.59	7.17	8.05		8.16	8.70	8.10	7.37	8.42	7.72	
<b>Dunn, Debbie (USA) (1978)</b>	time		12.08			23.70		36.08		49.95	49.95	3 / 3							<i>Graubner (2009)</i>
reaction time	0.189	interval				11.62		12.38		13.87	PB	# of strides	12.08	11.62	12.38	13.87	23.70	26.25	2.55
velocity			8.28			8.61		8.08		7.21	8.01		8.28	8.61	8.08	7.21	8.44	7.62	
<b>Sanders, Nicola (GBR) (1982)</b>	time		12.13			23.79		36.19		50.45	50.45	6 / 4							<i>Graubner (2009)</i>
reaction time	0.160	interval				11.66		12.40		14.26		# of strides	12.13	11.66	12.40	14.26	23.79	26.66	2.87
velocity			8.24			8.58		8.06		7.01	7.93		8.24	8.58	8.06	7.01	8.41	7.50	
<b>Thiam, Amy Mbacké (SEN) (19)</b>	time		12.11			24.04		37.16		51.70	51.70	8 / 5							<i>Graubner (2009)</i>
reaction time	0.166	interval				11.93		13.12		14.54		# of strides	12.11	11.93	13.12	14.54	24.04	27.66	3.62
velocity			8.26			8.38		7.62		6.88	7.74		8.26	8.38	7.62	6.88	8.32	7.23	
<b>Abugan, Folasade (NGR) (19)</b>	time		12.09			24.04		37.25		51.75	51.75	1 / 6							<i>Graubner (2009)</i>
reaction time	0.229	interval				11.95		13.21		14.50		# of strides	12.09	11.95	13.21	14.50	24.04	27.71	3.67
velocity			8.27			8.37		7.57		6.90	7.73		8.27	8.37	7.57	6.90	8.32	7.22	
<b>Zakari, Joy Nakhumicha (KEI)</b>	time		12.58			24.66		37.90		52.69	52.69	2 / 7							<i>Graubner (2009)</i>
reaction time	0.183	interval				12.08		13.24		14.79		# of strides	12.58	12.08	13.24	14.79	24.66	28.03	3.37
velocity			7.95			8.28		7.55		6.76	7.59		7.95	8.28	7.55	6.76	8.11	7.14	
<b>Désert-Marillier, Solen (FRA)</b>	time		12.47			24.90		37.57		53.26	53.26	7 / 8							<i>Graubner (2009)</i>
reaction time	0.221	interval				12.43		12.67		15.69		# of strides	12.47	12.43	12.67	15.69	24.90	28.36	3.46
velocity			8.02			8.05		7.89		6.37	7.51		8.02	8.05	7.89	6.37	8.03	7.05	
<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>																			
<b>Semi-Final 1</b>	date	16-Aug-09	<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>																
			50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Williams-Mills, Novlene (JAM)</b>	time		12.33			23.96		36.25		49.88	49.88	5 / 1							
reaction time	0.226	interval				11.63		12.29		13.63		# of strides	12.33	11.63	12.29	13.63	23.96	25.92	1.96
velocity			8.11			8.60		8.14		7.34	8.02		8.11	8.60	8.14	7.34	8.35	7.72	
<b>Montsho, Amantle (BOT) (19)</b>	time		12.20			23.74		36.26		49.89	49.89	4 / 2							
reaction time	0.220	interval				11.54		12.52		13.63		# of strides	12.20	11.54	12.52	13.63	23.74	26.15	2.41
velocity			8.20			8.67		7.99		7.34	8.02		8.20	8.67	7.99	7.34	8.42	7.65	
<b>Kapachinskaya, Anastasiya (RUS)</b>	time		12.37			24.08		36.49		50.30	50.30	6 / 3							
reaction time	0.247	interval				11.71		12.41		13.81		# of strides	12.37	11.71	12.41	13.81	24.08	26.22	2.14
velocity			8.08			8.54		8.06		7.24	7.95		8.08	8.54	8.06	7.24	8.31	7.63	
<b>Pompey, Aliann (GUY) (1978)</b>	time		12.25			24.05		36.70		50.71	50.71	8 / 4							
reaction time	0.178	interval				11.80		12.65		14.01	NR	# of strides	12.25	11.80	12.65	14.01	24.05	26.66	2.61
velocity			8.16			8.47		7.91		7.14	7.89		8.16	8.47	7.91	7.14	8.32	7.50	
<b>Beard, Jessica (USA) (1989)</b>	time		12.41			24.01		36.79		51.20	51.20	3 / 5							
reaction time	0.265	interval				11.60		12.78		14.41		# of strides	12.41	11.60	12.78	14.41	24.01	27.19	3.18
velocity			8.06			8.62		7.82		6.94	7.81		8.06	8.62	7.82	6.94	8.33	7.36	
<b>González, Norma (COL) (198)</b>	time		12.21			23.92		37.15		51.91	51.91	1 / 6							
reaction time	0.193	interval				11.71		13.23		14.76		# of strides	12.21	11.71	13.23	14.76	23.92	27.99	4.07
velocity			8.19			8.54		7.56		6.78	7.71		8.19	8.54	7.56	6.78	8.36	7.15	
<b>Alexander, Kineke (VIN) (198)</b>	time		12.52			24.59		38.08		53.43	53.43	2 / 7							
reaction time	0.177	interval				12.07		13.49		15.35		# of strides	12.52	12.07	13.49	15.35	24.59	28.84	4.25
velocity			7.99			8.29		7.41		6.51	7.49		7.99	8.29	7.41	6.51	8.13	6.93	
<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>																			
<b>Heat 6</b>	date	15-Aug-09	<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>																
			50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Krivoshapka, Antonina (RUS)</b>	time		12.57			24.73		37.31		51.03	51.03	4 / 1							
reaction time	0.194	interval				12.16		12.58		13.72		# of strides	12.57	12.16	12.58	13.72	24.73	26.30	1.57
velocity			7.96			8.22		7.95		7.29	7.84		7.96	8.22	7.95	7.29	8.09	7.60	
<b>Sanders, Nicola (GBR) (1982)</b>	time		12.59			24.62		37.04		51.64	51.64	3 / 2							
reaction time	0.171	interval				12.03		12.42		14.60		# of strides	12.59	12.03	12.42	14.60	24.62	27.02	2.40
velocity			7.94			8.31		8.05		6.85	7.75		7.94	8.31	8.05	6.85	8.12	7.40	
<b>Thiam, Amy Mbacké (SEN) (19)</b>	time		12.68			25.40		38.56		52.79	52.79	6 / 3							
reaction time	0.159	interval				12.72		13.16		14.23		# of strides	12.68	12.72	13.16	14.23	25.40	27.39	1.99
velocity			7.89			7.86		7.60		7.03	7.58		7.89	7.86	7.60	7.03	7.87	7.30	

<b>Akinsulie, Esther (CAN) (198</b>	time	12.60	25.34	38.77	53.21	53.21	5 / 4												
reaction time	0.194	interval	12.74	13.43	14.44	14.44	# of strides	12.60	12.74	13.43	14.44	25.34	27.87	2.53					
velocity	7.94	7.85	7.45	6.93	7.52			7.94	7.85	7.45	6.93	7.89	7.18						
<b>Tanno, Asami (JPN) (1985)</b>	time	12.81	25.36	38.66	53.30	53.30	2 / 5												
reaction time	0.161	interval	12.55	13.30	14.64	14.64	# of strides	12.81	12.55	13.30	14.64	25.36	27.94	2.58					
velocity	7.81	7.97	7.52	6.83	7.50			7.81	7.97	7.52	6.83	7.89	7.16						
<b>Heat 5</b>	date	15-Aug-09	Graubner (2009) - biomechanical analyses at the 12th IAAF world championships																
			50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Richards, Sanya (USA) (1985)</b>	time	12.46	24.89	37.50	51.06	51.06	7 / 1												
reaction time	0.176	interval	12.43	12.61	13.56	13.56	# of strides	12.46	12.43	12.61	13.56	24.89	26.17	1.28					
velocity	8.03	8.05	7.93	7.37	7.83			8.03	8.05	7.93	7.37	8.04	7.64						
<b>Ohuruogu, Christine (GBR)</b>	time	12.74	24.62	37.36	51.30	51.30	4 / 2												
reaction time	0.263	interval	11.88	12.74	13.94	13.94	# of strides	12.74	11.88	12.74	13.94	24.62	26.68	2.06					
velocity	7.85	8.42	7.85	7.17	7.80			7.85	8.42	7.85	7.17	8.12	7.50						
<b>Pompey, Aliann (GUY) (1978)</b>	time	12.52	24.88	37.67	51.38	51.38	6 / 3												
reaction time	0.184	interval	12.36	12.79	13.71	13.71	# of strides	12.52	12.36	12.79	13.71	24.88	26.50	1.62					
velocity	7.99	8.09	7.82	7.29	7.79			7.99	8.09	7.82	7.29	8.04	7.55						
<b>González, Norma (COL) (198</b>	time	12.38	24.80	37.06	51.86	51.86	3 / 4												
reaction time	0.187	interval	12.42	12.26	14.80	14.80	# of strides	12.38	12.42	12.26	14.80	24.80	27.06	2.26					
velocity	8.08	8.05	8.16	6.76	7.71			8.08	8.05	8.16	6.76	8.06	7.39						
<b>Heat 4</b>	date	15-Aug-09	Graubner (2009) - biomechanical analyses at the 12th IAAF world championships																
			50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Dunn, Debbie (USA) (1978)</b>	time	12.37	24.29	36.94	51.13	51.13	5 / 1												
reaction time	0.181	interval	11.92	12.65	14.19	14.19	# of strides	12.37	11.92	12.65	14.19	24.29	26.84	2.55					
velocity	8.08	8.39	7.91	7.05	7.82			8.08	8.39	7.91	7.05	8.23	7.45						
<b>Kapachinskaya, Anastasiya (</b>	time	12.53	24.38	37.12	51.17	51.17	6 / 2												
reaction time	0.225	interval	11.85	12.74	14.05	14.05	# of strides	12.53	11.85	12.74	14.05	24.38	26.79	2.41					
velocity	7.98	8.44	7.85	7.12	7.82			7.98	8.44	7.85	7.12	8.20	7.47						
<b>Ogoegbunam, Amaka (NGR)</b>	time	12.74	24.74	37.95	52.85	52.85	3 / 3												
reaction time	0.166	interval	12.00	13.21	14.90	14.90	# of strides	12.74	12.00	13.21	14.90	24.74	28.11	3.37					
velocity	7.85	8.33	7.57	6.71	7.57			7.85	8.33	7.57	6.71	8.08	7.11						
<b>Rasnayake, Chandrika (SRI)</b>	time	13.21	25.70	38.90	53.68	53.68	4 / 3												
reaction time	0.162	interval	12.49	13.20	14.78	14.78	# of strides	13.21	12.49	13.20	14.78	25.70	27.98	2.28					
velocity	7.57	8.01	7.58	6.77	7.45			7.57	8.01	7.58	6.77	7.78	7.15						
<b>Heat 3</b>	date	15-Aug-09	Graubner (2009) - biomechanical analyses at the 12th IAAF world championships																
			50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Montsho, Amantle (BOT) (1</b>	time	12.31	23.86	36.68	50.65	50.65	8 / 1												
reaction time	0.219	interval	11.55	12.82	13.97	13.97	# of strides	12.31	11.55	12.82	13.97	23.86	26.79	2.93					
velocity	8.12	8.66	7.80	7.16	7.90			8.12	8.66	7.80	7.16	8.38	7.47						
<b>Williams, Shericka (JAM) (19</b>	time	12.94	25.01	37.79	51.23	51.23	3 / 2												
reaction time	0.182	interval	12.07	12.78	13.44	13.44	# of strides	12.94	12.07	12.78	13.44	25.01	26.22	1.21					
velocity	7.73	8.29	7.82	7.44	7.81			7.73	8.29	7.82	7.44	8.00	7.63						
<b>Désert-Marillier, Solen (FRA)</b>	time	12.75	24.79	37.81	51.63	51.63	6 / 3												
reaction time	0.210	interval	12.04	13.02	13.82	13.82	# of strides	12.75	12.04	13.02	13.82	24.79	26.84	2.05					
velocity	7.84	8.31	7.68	7.24	7.75			7.84	8.31	7.68	7.24	8.07	7.45						
<b>Abugan, Folasade (NGR) (1</b>	time	12.56	24.68	37.64	51.70	51.70	5 / 4												
reaction time	0.217	interval	12.12	12.96	14.06	14.06	# of strides	12.56	12.12	12.96	14.06	24.68	27.02	2.34					
velocity	7.96	8.25	7.72	7.11	7.74			7.96	8.25	7.72	7.11	8.10	7.40						
<b>Nachula, Racheal (ZAM) (19</b>	time	13.14	25.58	38.88	53.21	53.21	2 / 5												
reaction time	0.184	interval	12.44	13.30	14.33	14.33	# of strides	13.14	12.44	13.30	14.33	25.58	27.63	2.05					
velocity	7.61	8.04	7.52	6.98	7.52			7.61	8.04	7.52	6.98	7.82	7.24						
<b>Heat 2</b>	date	15-Aug-09	Graubner (2009) - biomechanical analyses at the 12th IAAF world championships																
			50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Williams-Mills, Novlene (JAN</b>	time	12.59	24.24	37.00	51.55	51.55	4 / 1												
reaction time	0.222	interval	11.65	12.76	14.55	14.55	# of strides	12.59	11.65	12.76	14.55	24.24	27.31	3.07					
velocity	7.94	8.58	7.84	6.87	7.76			7.94	8.58	7.84	6.87	8.25	7.32						
<b>Beard, Jessica (USA) (1989)</b>	time	12.55	24.54	37.54	51.72	51.72	7 / 2												
reaction time	0.239	interval	11.99	13.00	14.18	14.18	# of strides	12.55	11.99	13.00	14.18	24.54	27.18	2.64					
velocity	7.97	8.34	7.69	7.05	7.73			7.97	8.34	7.69	7.05	8.15	7.36						
<b>Nwachukwu, Sorina (GER) (</b>	time	12.87	25.07	37.74	51.74	51.74	6 / 3												
reaction time	0.208	interval	12.20	12.67	14.00	14.00	# of strides	12.87	12.20	12.67	14.00	25.07	26.67	1.60					
velocity	7.77	8.20	7.89	7.14	7.73			7.77	8.20	7.89	7.14	7.98	7.50						
<b>Alexander, Kineke (VIN) (198</b>	time	12.91	24.83	37.78	52.44	52.44	5 / 4												
reaction time	0.193	interval	11.92	12.95	14.66	14.66	# of strides	12.91	11.92	12.95	14.66	24.83	27.61	2.78					
velocity	7.75	8.39	7.72	6.82	7.63			7.75	8.39	7.72	6.82	8.05	7.24						
<b>Heat 1</b>	date	15-Aug-09	Graubner (2009) - biomechanical analyses at the 12th IAAF world championships																
			50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential

<b>Litvinova, Lyudmila (RUS)</b> (1time)	12.92	25.13	37.83	51.31	51.31	4 / 1												
reaction time	0.209	interval	12.21	12.70	13.48	# of strides	12.92	12.21	12.70	13.48	25.13	26.18	1.05					
velocity	7.74	8.19	7.87	7.42	7.80		7.74	8.19	7.87	7.42	7.96	7.64						
<b>Grenot, Libania (ITA)</b> (1983) time	12.89	25.00	37.64	51.45	51.45	5 / 2												
reaction time	0.188	interval	12.11	12.64	13.81	# of strides	12.89	12.11	12.64	13.81	25.00	26.45	1.45					
velocity	7.76	8.26	7.91	7.24	7.77		7.76	8.26	7.91	7.24	8.00	7.56						
<b>Terrero, Indira (CUB)</b> (1985) time	12.85	24.96	37.89	51.98	51.98	2 / 3												
reaction time	0.301	interval	12.11	12.93	14.09	# of strides	12.85	12.11	12.93	14.09	24.96	27.02	2.06					
velocity	7.78	8.26	7.73	7.10	7.70		7.78	8.26	7.73	7.10	8.01	7.40						
<b>Ponteen, Tiandra (SKN)</b> (198) time	12.90	25.30	38.29	52.54	52.54	7 / 4												
reaction time	0.177	interval	12.40	12.99	14.25	# of strides	12.90	12.40	12.99	14.25	25.30	27.24	1.94					
velocity	7.75	8.06	7.70	7.02	7.61		7.75	8.06	7.70	7.02	7.91	7.34						
<b>Day, Christine (JAM)</b> (1986) time	13.08	25.64	38.62	53.13	53.13	8 / 5												
reaction time	0.208	interval	12.56	12.98	14.51	# of strides	13.08	12.56	12.98	14.51	25.64	27.49	1.85					
velocity	7.65	7.96	7.70	6.89	7.53		7.65	7.96	7.70	6.89	7.80	7.28						

**2009 Japanese National High School Championships (Nara, JPN)****FINAL**

date 29-Jul-09

Matsuo (2009) - 62nd high school championships: JAF scientific committee - biomechanics data collection

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Shingu, Miho (JPN)</b> (1991) time	13.07	26.17	40.08	54.21	54.21	3 / 1											
reaction time	interval	13.10	13.91	14.13	# of strides	13.07	13.10	13.91	14.13	26.17	28.04	1.87					
velocity	7.65	7.63	7.19	7.08	7.38		7.65	7.63	7.19	7.08	7.64	7.13					
<b>Torihara, Saki (JPN)</b> (1992) time	13.28	26.33	40.33	55.22	55.22	2 / 2											
reaction time	interval	13.05	14.00	14.89	# of strides	13.28	13.05	14.00	14.89	26.33	28.89	2.56					
velocity	7.53	7.66	7.14	6.72	7.24		7.53	7.66	7.14	6.72	7.60	6.92					
<b>Fujii, Natsumi (JPN)</b> (1991) time	13.23	27.02	40.95	55.32	55.32	5 / 3											
reaction time	interval	13.79	13.93	14.37	# of strides	13.23	13.79	13.93	14.37	27.02	28.30	1.28					
velocity	7.56	7.25	7.18	6.96	7.23		7.56	7.25	7.18	6.96	7.40	7.07					
<b>Mashita, Manami (JPN)</b> (1991) time	13.45	26.63	40.68	55.34	55.34	4 / 4											
reaction time	interval	13.18	14.05	14.66	# of strides	13.45	13.18	14.05	14.66	26.63	28.71	2.08					
velocity	7.43	7.59	7.12	6.82	7.23		7.43	7.59	7.12	6.82	7.51	6.97					
<b>Shihi, Natsumi (JPN)</b> (1991) time	13.58	27.37	41.62	55.75	55.75	6 / 5											
reaction time	interval	13.79	14.25	14.13	# of strides	13.58	13.79	14.25	14.13	27.37	28.38	1.01					
velocity	7.36	7.25	7.02	7.08	7.17		7.36	7.25	7.02	7.08	7.31	7.05					
<b>Morinaga, Saki (JPN)</b> (1991) time	13.42	26.95	41.23	56.21	56.21	7 / 6											
reaction time	interval	13.53	14.28	14.98	# of strides	13.42	13.53	14.28	14.98	26.95	29.26	2.31					
velocity	7.45	7.39	7.00	6.68	7.12		7.45	7.39	7.00	6.68	7.42	6.84					
<b>Hayashi, Maho (JPN)</b> time	13.08	26.48	40.87	56.24	56.24	1 / 7											
reaction time	interval	13.40	14.39	15.37	# of strides	13.08	13.40	14.39	15.37	26.48	29.76	3.28					
velocity	7.65	7.46	6.95	6.51	7.11		7.65	7.46	6.95	6.51	7.55	6.72					
<b>Hagiwara, Sayaka (JPN)</b> (198) time	13.53	27.60	42.13	57.18	57.18	8 / 8											
reaction time	interval	14.07	14.53	15.05	# of strides	13.53	14.07	14.53	15.05	27.60	29.58	1.98					
velocity	7.39	7.11	6.88	6.64	7.00		7.39	7.11	6.88	6.64	7.25	6.76					

**2009 French National Championships (Angers, FRA)****FINAL**

date 24-Jul-09

Le Bras (2013) - analyse de la performance et conception de dispositifs d'entraînement

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Désert-Mariller, Solen (FRA)</b> time	12.2	24.1	37.2	52.2	52.21	1 / 1											
reaction time	interval	11.9	13.1	15.0	# of strides	12.20	11.90	13.10	15.00	24.10	28.10	4.00					
velocity	8.20	8.40	7.63	6.67	7.65		8.20	8.40	7.63	6.67	8.30	7.12					

**2009 ISTAF (Berlin, GER)****FINAL**

date 14-Jun-09

Graubner (2009) - <http://www.fgs.uni-halle.de>

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Richards, Sanya (USA)</b> (1985) time	12.27	24.36	36.62	49.57	49.57	1 / 1											
reaction time	0.361	interval	12.09	12.26	12.95	# of strides	12.27	12.09	12.26	12.95	24.36	25.21	0.85				
velocity	8.15	8.27	8.16	7.72	8.07		8.15	8.27	8.16	7.72	8.21	7.93					
<b>Montsho, Amantle (BOT)</b> (1) time	12.56	24.73	37.42	50.94	50.94	1 / 2											
reaction time	0.572	interval	12.17	12.69	13.52	# of strides	12.56	12.17	12.69	13.52	24.73	26.21	1.48				
velocity	7.96	8.22	7.88	7.40	7.85		7.96	8.22	7.88	7.40	8.09	7.63					
<b>Gushchina, Yuliya (RUS)</b> (19) time	12.21	24.26	37.11	51.10	51.10	1 / 3											
reaction time	0.186	interval	12.05	12.85	13.99	# of strides	12.21	12.05	12.85	13.99	24.26	26.84	2.58				
velocity	8.19	8.30	7.78	7.15	7.83		8.19	8.30	7.78	7.15	8.24	7.45					
<b>McConnell, Lee (GBR)</b> (1978) time	12.49	24.76	37.77	52.22	52.22	1 / 4											
reaction time	0.282	interval	12.27	13.01	14.45	# of strides	12.49	12.27	13.01	14.45	24.76	27.46	2.70				
velocity	8.01	8.15	7.69	6.92	7.66		8.01	8.15	7.69	6.92	8.08	7.28					
<b>Wilkins, Bobby-Gaye (JAM)</b> time	12.74	24.75	37.63	52.23	52.23	1 / 5											
reaction time	0.380	interval	12.01	12.88	14.60	# of strides	12.74	12.01	12.88	14.60	24.75	27.48	2.73				
velocity	7.85	8.33	7.76	6.85	7.66		7.85	8.33	7.76	6.85	8.08	7.28					
<b>Firova, Tatyana (RUS)</b> (1982) time	13.00	25.28	38.20	52.36	52.36	1 / 6											
reaction time	0.259	interval	12.28	12.92	14.16	# of strides	13.00	12.28	12.92	14.16	25.28	27.08	1.80				



velocity	7.69	8.14	7.74	7.06	7.64					7.69	8.14	7.74	7.06	7.91	7.39	
<b>Nwachukwu, Sorina (GER)</b> ( time	12.38	24.42	37.49	52.45	52.45		/ 7									
reaction time 0.313 interval		12.04	13.07	14.96			# of strides	12.38	12.04	13.07	14.96	24.42	28.03	3.61		
velocity	8.08	8.31	7.65	6.68	7.63			8.08	8.31	7.65	6.68	8.19	7.14			
<b>Wittstock, Estie (RSA)</b> (1980 time	12.72	25.08	38.47	53.39	53.39		/ 8									
reaction time 0.199 interval		12.36	13.39	14.92			# of strides	12.72	12.36	13.39	14.92	25.08	28.31	3.23		
velocity	7.86	8.09	7.47	6.70	7.49			7.86	8.09	7.47	6.70	7.97	7.06			

## 2009 Chinese National Championships (Suzhou, CHN)

## FINAL

date 22-May-09

Wang (2012) - Research on the analysis of the speed distribution of China's outstanding female 400-meter runners

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Tang Xiaoyin (CHN)</b> (1985) time	12.50	24.79	38.41	53.06	53.06			53.06	53.06	/ 1							
reaction time interval		12.29	13.62	14.65			# of strides	12.50	12.29	13.62	14.65	24.79	28.27	3.48			
velocity	8.00	8.14	7.34	6.83	7.54			8.00	8.14	7.34	6.83	8.07	7.07				

## 2008 IAAF World Athletic Final (Stuttgart, GER)

## FINAL

date 14-Sep-08

Graubner (2009) - <http://www.fgs.uni-halle.de>

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Richards, Sanya (USA)</b> (1985) time	12.44	24.64	37.16	50.41	50.41			50.41	50.41	5 / 1							
reaction time 0.173 interval		12.20	12.52	13.25			# of strides	12.44	12.20	12.52	13.25	24.64	25.77	1.13			
velocity	8.04	8.20	7.99	7.55	7.93			8.04	8.20	7.99	7.55	8.12	7.76				
<b>Ohuruogu, Christine (GBR)</b> time	12.75	24.85	37.72	50.83	50.83			50.83	50.83	4 / 2							
reaction time 0.234 interval		12.10	12.87	13.11			# of strides	12.75	12.10	12.87	13.11	24.85	25.98	1.13			
velocity	7.84	8.26	7.77	7.63	7.87			7.84	8.26	7.77	7.63	8.05	7.70				
<b>Williams, Novlene (JAM)</b> (19) time	12.94	24.88	37.62	51.30	51.30			51.30	51.30	8 / 3							
reaction time 0.231 interval		11.94	12.74	13.68			# of strides	12.94	11.94	12.74	13.68	24.88	26.42	1.54			
velocity	7.73	8.38	7.85	7.31	7.80			7.73	8.38	7.85	7.31	8.04	7.57				
<b>Montsho, Amantle (BOT)</b> (1) time	13.04	24.83	37.69	51.54	51.54			51.54	51.54	3 / 4							
reaction time 0.387 interval		11.79	12.86	13.85			# of strides	13.04	11.79	12.86	13.85	24.83	26.71	1.88			
velocity	7.67	8.48	7.78	7.22	7.76			7.67	8.48	7.78	7.22	8.05	7.49				
<b>Williams, Shericka (JAM)</b> (19) time	12.72	24.91	37.75	51.55	51.55			51.55	51.55	6 / 5							
reaction time 0.231 interval		12.19	12.84	13.80			# of strides	12.72	12.19	12.84	13.80	24.91	26.64	1.73			
velocity	7.86	8.20	7.79	7.25	7.76			7.86	8.20	7.79	7.25	8.03	7.51				
<b>Wineberg, Mary (USA)</b> (1980) time	12.31	24.12	37.22	51.65	51.65			51.65	51.65	1 / 6							
reaction time 0.263 interval		11.81	13.10	14.43			# of strides	12.31	11.81	13.10	14.43	24.12	27.53	3.41			
velocity	8.12	8.47	7.63	6.93	7.74			8.12	8.47	7.63	6.93	8.29	7.26				
<b>Firova, Tatyana (RUS)</b> (1982) time	13.21	25.44	38.29	51.85	51.85			51.85	51.85	7 / 7							
reaction time 0.192 interval		12.23	12.85	13.56			# of strides	13.21	12.23	12.85	13.56	25.44	26.41	0.97			
velocity	7.57	8.18	7.78	7.37	7.71			7.57	8.18	7.78	7.37	7.86	7.57				
<b>Lloyd, Shereefa (JAM)</b> (1982) time	12.70	24.45	37.38	51.86	51.86			51.86	51.86	2 / 8							
reaction time 0.206 interval		11.75	12.93	14.48			# of strides	12.70	11.75	12.93	14.48	24.45	27.41	2.96			
velocity	7.87	8.51	7.73	6.91	7.71			7.87	8.51	7.73	6.91	8.18	7.30				

Vazel (2011) - speed reserve in the 400m

## 2008 Olympic Games (Beijing, CHN)

## FINAL

date 19-Aug-08

Butler (2016) - IAAF statistics handbook- special edition: Games of the XXXI Olympiad- Rio 2016

Graubner (2008) - <http://www.fgs.uni-halle.de> (TV Analysis)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Ohuruogu, Christine (GBR)</b> time	12.4	23.83	36.24	49.62	49.62			49.62	49.62	4 / 1							
reaction time 0.237 interval		11.43	12.41	13.38			# of strides	12.40	11.43	12.41	13.38	23.83	25.79	1.96			
velocity	8.06	8.75	8.06	7.47	8.06			8.06	8.75	8.06	7.47	8.39	7.75				
<b>Williams, Shericka (JAM)</b> (19) time	12.3	23.59	36.38	49.69	49.69			49.69	49.69	6 / 2							
reaction time 0.207 interval		11.29	12.79	13.31	<b>PB</b>		# of strides	12.30	11.29	12.79	13.31	23.59	26.10	2.51			
velocity	8.13	8.86	7.82	7.51	8.05			8.13	8.86	7.82	7.51	8.48	7.66				
<b>Richards, Sanya (USA)</b> (1985) time	11.75	23.50	35.66	49.93	49.93			49.93	49.93	7 / 3							
reaction time 0.196 interval		11.75	12.16	14.27			# of strides	11.75	11.75	12.16	14.27	23.50	26.43	2.93			
velocity	8.51	8.51	8.22	7.01	8.01			8.51	8.51	8.22	7.01	8.51	7.57				
<b>Gushchina, Yulia (RUS)</b> (198) time	11.8	23.3	35.8	50.0	50.0			50.0	50.0	5 / 4							
reaction time 0.242 interval		11.50	12.50	14.20	<b>PB</b>		# of strides	11.80	11.50	12.50	14.20	23.30	26.70	3.40			
velocity	8.47	8.70	8.00	7.04	8.00			8.47	8.70	8.00	7.04	8.58	7.49				
<b>Kapachinskaya, Anastasiya</b> ( time	12.3	24.1	36.2	50.0	50.0			50.0	50.0	9 / 5							
reaction time 0.378 interval		11.80	12.10	13.80	<b>PB</b>		# of strides	12.30	11.80	12.10	13.80	24.10	25.90	1.80			
velocity	8.13	8.47	8.26	7.25	8.00			8.13	8.47	8.26	7.25	8.30	7.72				
<b>Firova, Tatyana (RUS)</b> (1982) time	12.5	24.0	36.0	50.1	50.1			50.1	50.1	3 / 6							
reaction time 0.196 interval		11.50	12.00	14.10			# of strides	12.50	11.50	12.00	14.10	24.00	26.10	2.10			
velocity	8.00	8.70	8.33	7.09	7.98			8.00	8.70	8.33	7.09	8.33	7.66				
<b>Whyte, Rosemarie (JAM)</b> (19) time	12.4	24.2	36.6	50.7	50.68			50.68	50.68	2 / 7							
reaction time 0.181 interval		11.80	12.40	14.10			# of strides	12.40	11.80	12.40	14.10	24.20	26.50	2.30			
velocity	8.06	8.47	8.06	7.09	7.89			8.06	8.47	8.06	7.09	8.26	7.55				
<b>Montsho, Amantie (BOT)</b> (1) time	12.3	24.2	36.8	51.2	51.18			51.18	51.18	8 / 8							
reaction time 0.299 interval		11.90	12.60	14.40			# of strides	12.30	11.90	12.60	14.40	24.20	27.00	2.80			
velocity	8.13	8.40	7.94	6.94	7.82			8.13	8.40	7.94	6.94	8.26	7.41				

## Semi-Final 2

date 17-Aug-08

Butler (2016) - IAAF statistics handbook- special edition: Games of the XXXI Olympiad- Rio 2016

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Richards, Sanya (USA) (1985)</b> time								35.5	49.9	49.90	7 / 1						
reaction time	0.190								14.40		# of strides			14.40			
velocity						8.45		6.94	8.02					6.94			

## 2008 Japanese National High School Championships (Kumagaya, JPN)

## FINAL

date 29-Jul-08

Abe (2008) - 61st high school championships: JAF scientific committee - biomechanics data collection

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Kitamura, Chisato (JPN) (19)</b> time	7.28	13.55	20.05	26.72	33.53	40.38	47.62	55.30	55.30	/ 1							
reaction time	6.27	6.50	6.67	6.81	6.85	7.24	7.68			# of strides	13.55	13.17	13.66	14.92	26.72	28.58	1.86
velocity	6.87	7.97	7.69	7.50	7.34	7.30	6.91	6.51	7.23		7.38	7.59	7.32	6.70	7.49	7.00	
<b>Mizuguchi, Sayo (JPN) (1990)</b> time	7.02	13.10	19.42	25.94	32.96	40.12	47.73	55.91	55.91	/ 2							
reaction time	6.08	6.32	6.52	7.02	7.16	7.61	8.18			# of strides	13.10	12.84	14.18	15.79	25.94	29.97	4.03
velocity	7.12	8.22	7.91	7.67	7.12	6.98	6.57	6.11	7.15		7.63	7.79	7.05	6.33	7.71	6.67	
<b>Miki, Shiori (JPN) (1991)</b> time	7.27	13.49	20.02	26.76	33.77	40.89	48.31	56.03	56.03	/ 3							
reaction time	6.88	8.04	7.66	7.42	7.13	7.02	6.74	6.48	7.14	# of strides	13.49	13.27	14.13	15.14	26.76	29.27	2.51
velocity											7.41	7.54	7.08	6.61	7.47	6.83	

## 2008 USA Olympic Trials (Eugene, OR)

## FINAL

date 03-Jul-08

USATF Women's Sprint Development with HPC (2008)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Richards, Sanya (USA) (1985)</b> time	11.87	17.18	24.07	30.09	36.43	42.79	49.89	49.89	49.89	5 / 1							
reaction time			5.31	6.89	6.02	6.34	6.36	7.10		# of strides	11.87	12.20	12.36	13.46	24.07	25.82	1.75
velocity	8.42	9.42	7.26	8.31	7.89	7.86	7.04	8.02	8.02		8.42	8.20	8.09	7.43	8.31	7.75	
<b>Wineberg, Mary (USA) (1980)</b> time	11.96	17.08	23.69	29.96	36.50	43.22	50.85	50.85	50.85	4 / 2							
reaction time		5.12	6.61	6.27	6.54	6.72	7.63			# of strides	11.96	11.73	12.81	14.35	23.69	27.16	3.47
velocity	8.36	9.77	7.56	7.97	7.65	7.44	6.55	7.87	7.87		8.36	8.53	7.81	6.97	8.44	7.36	
<b>Trotter, De'Hashia (Dee Dee)</b> time	12.79	17.89	24.62	30.72	37.15	43.61	50.88	50.88	50.88	7 / 3							
reaction time		5.10	6.73	6.10	6.43	6.46	7.27			# of strides	12.79	11.83	12.53	13.73	24.62	26.26	1.64
velocity	7.82	9.80	7.43	8.20	7.78	7.74	6.88	7.86	7.86		7.82	8.45	7.98	7.28	8.12	7.62	
<b>Henderson, Monique (USA)</b> time	12.23	17.63	24.51	30.68	37.23	43.72	50.98	50.98	50.98	8 / 4							
reaction time		5.40	6.88	6.17	6.55	6.49	7.26			# of strides	12.23	12.28	12.72	13.75	24.51	26.47	1.96
velocity	8.18	9.26	7.27	8.10	7.63	7.70	6.89	7.85	7.85		8.18	8.14	7.86	7.27	8.16	7.56	
<b>Hastings, Natasha (USA) (19)</b> time	12.17	17.40	24.29	30.46	36.92	43.69	51.13	51.13	51.13	6 / 5							
reaction time		5.23	6.89	6.17	6.46	6.77	7.44			# of strides	12.17	12.12	12.63	14.21	24.29	26.84	2.55
velocity	8.22	9.56	7.26	8.10	7.74	7.39	6.72	7.82	7.82		8.22	8.25	7.92	7.04	8.23	7.45	
<b>Floyd, Ebonie (USA) (1983)</b> time	12.31	17.88	24.70	30.93	37.55	44.23	51.26	51.26	51.26	1 / 6							
reaction time		5.57	6.82	6.23	6.62	6.68	7.03			# of strides	12.31	12.39	12.85	13.71	24.70	26.56	1.86
velocity	8.12	8.98	7.33	8.03	7.55	7.49	7.11	7.80	7.80		8.12	8.07	7.78	7.29	8.10	7.53	
<b>Hargrove, Monica (USA) (19)</b> time	12.28	17.40	24.20	30.40	37.10	44.30	51.94	51.94	51.94	2 / 7							
reaction time		5.12	6.80	6.20	6.70	7.20	7.64			# of strides	12.28	11.92	12.90	14.84	24.20	27.74	3.54
velocity	8.14	9.77	7.35	8.06	7.46	6.94	6.54	7.70	7.70		8.14	8.39	7.75	6.74	8.26	7.21	
<b>Dunn, Debbie (USA) (1978)</b> time	11.90	17.05	23.42	29.90	36.66	43.96	52.41	52.41	52.41	3 / 8							
reaction time		5.15	6.37	6.48	6.76	7.30	8.45			# of strides	11.90	11.52	13.24	15.75	23.42	28.99	5.57
velocity	8.40	9.71	7.85	7.72	7.40	6.85	5.92	7.63	7.63		8.40	8.68	7.55	6.35	8.54	6.90	

## Quarter-Final 4

date 29-Jun-08

USATF Women's Sprint Development with HPC (2008)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Trotter, De'Hashia (Dee Dee)</b> time		19.53	25.72	31.92	38.43	44.83	51.97	51.97	51.97	8 / 1							
reaction time		6.19	6.20	6.51	6.40	7.14				# of strides			12.71	13.54	25.72	26.25	0.53
velocity		7.68	8.08	8.06	7.68	7.81	7.00	7.70	7.70				7.87	7.39	7.78	7.62	
<b>Dunn, Debbie (USA) (1978)</b> time	12.66	19.07	25.40	31.70	38.37	44.86	52.20	52.20	52.20	7 / 2							
reaction time		6.41	6.33	6.30	6.67	6.49	7.34			# of strides	12.66	12.74	12.97	13.83	25.40	26.80	1.40
velocity	7.90	7.80	7.90	7.94	7.50	7.70	6.81	7.66	7.66		7.90	7.85	7.71	7.23	7.87	7.46	
<b>Hargrove, Monica (USA) (19)</b> time	12.65	18.93	25.24	31.64	38.36	44.89	52.36	52.36	52.36	6 / 3							
reaction time		6.28	6.31	6.40	6.72	6.53	7.47			# of strides	12.65	12.59	13.12	14.00	25.24	27.12	1.88
velocity	7.91	7.96	7.92	7.81	7.44	7.66	6.69	7.64	7.64		7.91	7.94	7.62	7.14	7.92	7.37	
<b>Coleman, Kenyata (USA) (19)</b> time	12.35	18.89	25.30	31.68	38.51	45.62	52.92	52.92	52.92	2 / 4							
reaction time		6.54	6.41	6.38	6.83	7.11	7.30			# of strides	12.35	12.95	13.21	14.41	25.30	27.62	2.32
velocity	8.10	7.65	7.80	7.84	7.32	7.03	6.85	7.56	7.56		8.10	7.72	7.57	6.94	7.91	7.24	
<b>Rooks, Cynethia (USA) (198)</b> time	12.52	18.80	25.25	31.59	38.34	45.22	52.95	52.95	52.95	3 / 5							
reaction time		6.28	6.45	6.34	6.75	6.88	7.73			# of strides	12.52	12.73	13.09	14.61	25.25	27.70	2.45
velocity	7.99	7.96	7.75	7.89	7.41	7.27	6.47	7.55	7.55		7.99	7.86	7.64	6.84	7.92	7.22	
<b>Cole, Leslie (USA) (1987)</b> time		19.20	25.60	31.88	38.51	45.54	53.19	53.19	53.19	4 / 6							
reaction time		6.40	6.28	6.63	7.03	7.65				# of strides			12.91	14.68	25.60	27.59	1.99
velocity		7.81	7.81	7.96	7.54	7.11	6.54	7.52	7.52				7.75	6.81	7.81	7.25	
<b>Baldwin, LaJada (USA) (198)</b> time	13.16		26.31	32.92	39.76	46.58	54.01	54.01	54.01	5 / 7							
reaction time			13.15	6.61	6.84	6.82	7.43			# of strides	13.16	13.15	13.45	14.25	26.31	27.70	1.39
velocity	7.60		7.60	7.56	7.31	7.33	6.73	7.41	7.41		7.60	7.60	7.43	7.02	7.60	7.22	

## Quarter-Final 3

date 29-Jun-08

USATF Women's Sprint Development with HPC (2008)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Richards, Sanya (USA) (1985)</b> time	12.11	18.24	24.48	30.48	36.80	43.64	51.08	51.08	51.08	5 / 1							
reaction time interval		6.13	6.24	6.00	6.32	6.84	7.44			# of strides	12.11	12.37	12.32	14.28	24.48	26.60	2.12
velocity	8.26	8.16	8.01	8.33	7.91	7.31	6.72	7.83			8.26	8.08	8.12	7.00	8.17	7.52	
<b>Floyd, Ebonie (USA) (1983)</b> time	12.70	18.47	24.59	30.79	37.40	44.18	51.37	51.37	51.37	4 / 2							
reaction time interval		5.77	6.12	6.20	6.61	6.78	7.19			# of strides	12.70	11.89	12.81	13.97	24.59	26.78	2.19
velocity	7.87	8.67	8.17	8.06	7.56	7.37	6.95	7.79			7.87	8.41	7.81	7.16	8.13	7.47	
<b>Cross, Brandi (USA) (1988)</b> time	12.33	18.12	24.24	30.55	37.20	44.06	51.63	51.63	51.63	3 / 3							
reaction time interval		5.79	6.12	6.31	6.65	6.86	7.57	<b>PB</b>	<b>PB</b>	# of strides	12.33	11.91	12.96	14.43	24.24	27.39	3.15
velocity	8.11	8.64	8.17	7.92	7.52	7.29	6.61	7.75			8.11	8.40	7.72	6.93	8.25	7.30	
<b>Hennagan, Monique (USA) (1985)</b> time	12.62	18.53	24.71	30.98	37.62	44.29	51.73	51.73	51.73	7 / 4							
reaction time interval		5.91	6.18	6.27	6.64	6.67	7.44			# of strides	12.62	12.09	12.91	14.11	24.71	27.02	2.31
velocity	7.92	8.46	8.09	7.97	7.53	7.50	6.72	7.73			7.92	8.27	7.75	7.09	8.09	7.40	
<b>Cousins, Jessica (USA) (1988)</b> time	12.88	18.67	24.75	31.30	37.88	45.02	52.63	52.63	52.63	2 / 5							
reaction time interval		5.79	6.08	6.55	6.58	7.14	7.61			# of strides	12.88	11.87	13.13	14.75	24.75	27.88	3.13
velocity	7.76	8.64	8.22	7.63	7.60	7.00	6.57	7.60			7.76	8.42	7.62	6.78	8.08	7.17	
<b>Parrish, Donnice (USA) (1985)</b> time	12.65	18.73	25.00	31.67	38.68	45.95	54.14	54.14	54.14	6 / 6							
reaction time interval		6.08	6.27	6.67	7.01	7.27	8.19			# of strides	12.65	12.35	13.68	15.46	25.00	29.14	4.14
velocity	7.91	8.22	7.97	7.50	7.13	6.88	6.11	7.39			7.91	8.10	7.31	6.47	8.00	6.86	
<b>Quarter-Final 2</b> date 29-Jun-08											USATF Women's Sprint Development with HPC (2008)						
	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Hastings, Natasha (USA) (1985)</b> time	12.35	18.51	25.03	31.37	37.71	44.40	51.51	51.51	51.51	7 / 1							
reaction time interval		6.16	6.52	6.34	6.34	6.69	7.11			# of strides	12.35	12.68	12.68	13.80	25.03	26.48	1.45
velocity	8.10	8.12	7.67	7.89	7.89	7.47	7.03	7.77			8.10	7.89	7.89	7.25	7.99	7.55	
<b>Woods, Shareese (USA) (1985)</b> time	12.94	19.21	25.55	31.77	38.08	44.60	51.60	51.60	51.60	8 / 2							
reaction time interval		6.27	6.34	6.22	6.31	6.52	7.00	<b>PB</b>	<b>PB</b>	# of strides	12.94	12.61	12.53	13.52	25.55	26.05	0.50
velocity	7.73	7.97	7.89	8.04	7.92	7.67	7.14	7.75			7.73	7.93	7.98	7.40	7.83	7.68	
<b>Cox, Shana (USA) (1985)</b> time	12.31	18.08	24.21	31.44	37.17	44.16	51.69	51.69	51.69	3 / 3							
reaction time interval		5.77	6.13	7.23	5.73	6.99	7.53			# of strides	12.31	11.90	12.96	14.52	24.21	27.48	3.27
velocity	8.12	8.67	8.16	6.92	8.73	7.15	6.64	7.74			8.12	8.40	7.72	6.89	8.26	7.28	
<b>Robinson, Moushami (USA) (1985)</b> time	12.16	18.09	24.26	30.70	37.35	44.21	52.02	52.02	52.02	4 / 4							
reaction time interval		5.93	6.17	6.44	6.65	6.86	7.81			# of strides	12.16	12.10	13.09	14.67	24.26	27.76	3.50
velocity	8.22	8.43	8.10	7.76	7.52	7.29	6.40	7.69			8.22	8.26	7.64	6.82	8.24	7.20	
<b>Griffin, Jenna (USA) (1985)</b> time	12.41	18.42	24.72	31.38	38.28	45.41	53.20	53.20	53.20	2 / 5							
reaction time interval		6.01	6.30	6.66	6.90	7.13	7.79			# of strides	12.41	12.31	13.56	14.92	24.72	28.48	3.76
velocity	8.06	8.32	7.94	7.51	7.25	7.01	6.42	7.52			8.06	8.12	7.37	6.70	8.09	7.02	
<b>Holmes, Dominique (USA) (1985)</b> time	12.86	19.12	25.52	32.03	38.74	45.76	53.35	53.35	53.35	5 / 6							
reaction time interval		6.26	6.40	6.51	6.71	7.02	7.59			# of strides	12.86	12.66	13.22	14.61	25.52	27.83	2.31
velocity	7.78	7.99	7.81	7.68	7.45	7.12	6.59	7.50			7.78	7.90	7.56	6.84	7.84	7.19	
<b>McNary, Lauren (USA) (1986)</b> time	12.60	18.73	25.34	31.54	38.40	45.60	53.60	53.60	53.60	6 / 7							
reaction time interval		6.13	6.61	6.20	6.86	7.20	8.00			# of strides	12.60	12.74	13.06	15.20	25.34	28.26	2.92
velocity	7.94	8.16	7.56	8.06	7.29	6.94	6.25	7.46			7.94	7.85	7.66	6.58	7.89	7.08	
<b>Quarter-Final 1</b> date 29-Jun-08											USATF Women's Sprint Development with HPC (2008)						
	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Wineberg, Mary (USA) (1980)</b> time		19.03	25.55	31.45	37.96	44.29	51.46	51.46	51.46	8 / 1							
reaction time interval			6.52	5.90	6.51	6.33	7.17			# of strides			12.41	13.50	25.55	25.91	0.36
velocity			7.88	7.67	8.47	7.68	7.90	6.97	7.77				8.06	7.41	7.83	7.72	
<b>Henderson, Monique (USA) (1985)</b> time	12.66	18.72	25.12	31.45	38.03	44.72	52.24	52.24	52.24	5 / 2							
reaction time interval		6.06	6.40	6.33	6.58	6.69	7.52			# of strides	12.66	12.46	12.91	14.21	25.12	27.12	2.00
velocity	7.90	8.25	7.81	7.90	7.60	7.47	6.65	7.66			7.90	8.03	7.75	7.04	7.96	7.37	
<b>Kidd, Ashlee (USA) (1985)</b> time	12.52	18.52	24.78	31.38	38.33	45.49	53.22	53.22	53.22	2 / 3							
reaction time interval		6.00	6.26	6.60	6.95	7.16	7.73			# of strides	12.52	12.26	13.55	14.89	24.78	28.44	3.66
velocity	7.99	8.33	7.99	7.58	7.19	6.98	6.47	7.52			7.99	8.16	7.38	6.72	8.07	7.03	
<b>Gilbert, Nina (USA) (1984)</b> time	12.43	18.29	24.49	30.99	37.82	45.15	53.37	53.37	53.37	3 / 4							
reaction time interval		5.86	6.20	6.50	6.83	7.33	8.22			# of strides	12.43	12.06	13.33	15.55	24.49	28.88	4.39
velocity	8.05	8.53	8.06	7.69	7.32	6.82	6.08	7.49			8.05	8.29	7.50	6.43	8.17	6.93	
<b>Blake, Dominique (USA) (1985)</b> time	12.91	18.94	25.35	31.92	38.91	46.18	53.90	53.90	53.90	7 / 5							
reaction time interval		6.03	6.41	6.57	6.99	7.27	7.72			# of strides	12.91	12.44	13.56	14.99	25.35	28.55	3.20
velocity	7.75	8.29	7.80	7.61	7.15	6.88	6.48	7.42			7.75	8.04	7.37	6.67	7.89	7.01	
<b>McCorney, Francena (USA) (1985)</b> time	13.01	19.04	25.61	32.45	40.02	48.00	57.73	57.73	57.73	4 / 6							
reaction time interval		6.03	6.57	6.84	7.57	8.00	17.71			# of strides	13.01	12.60	14.41	17.71	25.61	32.12	6.51
velocity	7.69	8.29	7.61	7.31	6.61	5.65	6.93				7.69	7.94	6.94	5.65	7.81	6.23	

**2007 IAAF World Athletic Final (Stuttgart, GER)****FINAL**

date 23-Sep-07

Graubner (2007) - <http://www.fgs.uni-halle.de>

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Richards, Sanya (USA) (1985)</b> time	11.88		23.71		36.06		49.27	49.27	49.27	5 / 1							
reaction time interval		0.166	11.83		12.35		13.21			# of strides	11.88	11.83	12.35	13.21	23.71	25.56	1.85
velocity	8.42		8.45		8.10		7.57		8.12		8.42	8.45	8.10	7.57	8.44	7.82	



<b>Williams, Novlene (JAM) (19)</b> time	12.37	24.23	36.69	50.12	50.12	6 / 2												
reaction time	0.186	interval	11.86	12.46	13.43	# of strides	12.37	11.86	12.46	13.43	24.23	25.89	1.66					
velocity	8.08	8.43	8.03	7.45	7.98		8.08	8.43	8.03	7.45	8.25	7.72						
<b>Ohuruogu, Christine (GBR)</b> time	12.54	24.37	36.97	50.20	50.20	4 / 3												
reaction time	0.185	interval	11.83	12.60	13.23	# of strides	12.54	11.83	12.60	13.23	24.37	25.83	1.46					
velocity	7.97	8.45	7.94	7.56	7.97		7.97	8.45	7.94	7.56	8.21	7.74						
<b>Thiam, Amy Mbacké (SEN) (19)</b> time	12.10	23.87	36.63	50.33	50.33	1 / 4												
reaction time	0.159	interval	11.77	12.76	13.70	# of strides	12.10	11.77	12.76	13.70	23.87	26.46	2.59					
velocity	8.26	8.50	7.84	7.30	7.95		8.26	8.50	7.84	7.30	8.38	7.56						
<b>Sanders, Nicola (GBR) (1982)</b> time	12.59	24.40	36.69	50.44	50.44	3 / 5												
reaction time	0.177	interval	11.81	12.29	13.75	# of strides	12.59	11.81	12.29	13.75	24.40	26.04	1.64					
velocity	7.94	8.47	8.14	7.27	7.93		7.94	8.47	8.14	7.27	8.20	7.68						
<b>Williams, Shericka (JAM) (19)</b> time	12.67	24.51	36.73	50.64	50.64	7 / 6												
reaction time	0.201	interval	11.84	12.22	13.91	# of strides	12.67	11.84	12.22	13.91	24.51	26.13	1.62					
velocity	7.89	8.45	8.18	7.19	7.90		7.89	8.45	8.18	7.19	8.16	7.65						
<b>Wineberg, Mary (USA) (1980)</b> time	12.43	24.19	36.90	50.73	50.73	2 / 7												
reaction time	0.146	interval	11.76	12.71	13.83	# of strides	12.43	11.76	12.71	13.83	24.19	26.54	2.35					
velocity	8.05	8.50	7.87	7.23	7.88		8.05	8.50	7.87	7.23	8.27	7.54						
<b>Usovich, Ilona (BLR) (1982)</b> time	12.59	24.27	37.21	51.31	51.38	8 / 8												
reaction time	0.196	interval	11.68	12.94	14.10	# of strides	12.59	11.68	12.94	14.10	24.27	27.04	2.77					
velocity	7.94	8.56	7.73	7.09	7.79		7.94	8.56	7.73	7.09	8.24	7.40						

## 2007 ISTAF (Berlin, GER) (TV Analysis)

## FINAL

date 16-Sep-07

Graubner (2008) - <http://www.fgs.uni-halle.de>

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Richards, Sanya (USA) (1985)</b> time	12.03	23.89	36.24	49.27	49.27	4 / 1											
reaction time	0.251	interval	11.86	12.35	13.03	# of strides	12.03	11.86	12.35	13.03	23.89	25.38	1.49				
velocity	8.31	8.43	8.10	7.67	8.12		188.5	8.31	8.43	8.10	7.67	8.37	7.88				

## 2007 IAAF World Championships (Osaka, JPN)

## FINAL

date 29-Aug-07

Mochida (2008) - biomechanical analysis of the 400m final race at the 2007 world championships in athletics

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
<b>Ohuruogu, Christine (GBR)</b> time	6.86	12.27	17.98	23.85	29.87	36.14	42.72	49.61	49.61	6 / 1								
reaction time	0.219	interval	5.71	5.87	6.02	6.27	6.58	6.89	PB	# of strides	12.27	11.58	12.29	13.47	23.85	25.76	1.91	
velocity	7.29	9.24	8.76	8.52	8.31	7.97	7.60	7.26	8.06		183.5	8.15	8.64	8.14	7.42	8.39	7.76	
<b>Sanders, Nicola (GBR) (1982)</b> time	6.83	12.47	18.20	24.17	29.96	36.21	42.72	49.65	49.65	4 / 2								
reaction time	0.175	interval	5.64	5.73	5.97	5.79	6.25	6.51	6.93	PB	# of strides	12.47	11.70	12.04	13.44	24.17	25.48	1.31
velocity	7.32	8.87	8.73	8.38	8.64	8.00	7.68	7.22	8.06		190.0	8.02	8.55	8.31	7.44	8.27	7.85	
<b>Williams, Novlene (JAM) (19)</b> time	6.63	12.07	17.65	23.47	29.46	35.77	42.44	49.66	49.66	7 / 3								
reaction time	0.206	interval	5.44	5.58	5.82	5.99	6.31	6.67	7.22	# of strides	12.07	11.40	12.30	13.89	23.47	26.19	2.72	
velocity	7.54	9.19	8.96	8.59	8.35	7.92	7.50	6.93	8.05		197.5	8.29	8.77	8.13	7.20	8.52	7.64	
<b>Guevara, Ana (MEX) (1977)</b> time	6.90	12.47	18.28	24.31	30.24	36.50	43.05	50.16	50.16	9 / 4								
reaction time	0.183	interval	5.57	5.81	6.03	5.93	6.26	6.55	7.11	# of strides	12.47	11.84	12.19	13.66	24.31	25.85	1.54	
velocity	7.25	8.98	8.61	8.29	8.43	7.99	7.63	7.03	7.97		196.0	8.02	8.45	8.20	7.32	8.23	7.74	
<b>Trotter, DeeDee (USA) (1982)</b> time	7.00	12.54	18.28	24.23	30.03	36.27	42.91	50.17	50.17	8 / 5								
reaction time	0.162	interval	5.54	5.74	5.95	5.80	6.24	6.64	7.26	# of strides	12.54	11.69	12.04	13.90	24.23	25.94	1.71	
velocity	7.14	9.03	8.71	8.40	8.62	8.01	7.53	6.89	7.97		187.7	7.97	8.55	8.31	7.19	8.25	7.71	
<b>Antyukh, Natalya (RUS) (198)</b> time	6.78	12.19	17.75	23.53	29.58	35.93	42.66	50.33	50.33	5 / 6								
reaction time	0.161	interval	5.41	5.56	5.78	6.05	6.35	6.73	7.67	# of strides	12.19	11.34	12.40	14.40	23.53	26.80	3.27	
velocity	7.37	9.24	8.99	8.65	8.26	7.87	7.43	6.52	7.95		185.0	8.20	8.82	8.06	6.94	8.50	7.46	
<b>Usovich, Ilona (BLR) (1982)</b> time	6.90	12.54	18.35	24.45	30.62	36.97	43.53	50.54	50.54	3 / 7								
reaction time	0.192	interval	5.64	5.81	6.10	6.17	6.35	6.56	7.01	# of strides	12.54	11.91	12.52	13.57	24.45	26.09	1.64	
velocity	7.25	8.87	8.61	8.20	8.10	7.87	7.62	7.13	7.91		194.0	7.97	8.40	7.99	7.37	8.18	7.67	
<b>Wineberg, Mary (USA) (1980)</b> time	6.60	12.20	18.03	24.22	30.42	36.94	43.69	50.96	50.96	2 / 8								
reaction time	0.159	interval	5.60	5.83	6.19	6.20	6.52	6.75	7.27	# of strides	12.20	12.02	12.72	14.02	24.22	26.74	2.52	
velocity	7.58	8.93	8.58	8.08	8.06	7.67	7.41	6.88	7.85		185.0	8.20	8.32	7.86	7.13	8.26	7.48	

## Semi-Final 1

date 27-Aug-07

Mochida (2008) - biomechanical analysis of the 400m final race at the 2007 world championships in athletics

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Tanno, Asami (JPN) (1985)</b> time	6.84	12.58	18.54	24.76	31.06	37.63	44.57	51.81	51.81	3 / 8							
reaction time	0.199	interval	5.74	5.96	6.22	6.30	6.57	6.94	7.24	# of strides	12.58	12.18	12.87	14.18	24.76	27.05	2.29
velocity	7.31	8.71	8.39	8.04	7.94	7.61	7.20	6.91	7.72		203.7	7.95	8.21	7.77	7.05	8.08	7.39

## 2007 DN Galan (Stockholm, SWE)

## FINAL

date 07-Aug-07

Vazel (2011) - speed reserve in the 400m

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Richards, Sanya (USA) (1985)</b> time	11.8	23.6	36.0	49.7	49.72	4 / 2											
reaction time	interval	11.8	12.4	13.7	# of strides	11.80	11.80	12.40	13.70	23.60	26.10	2.50					
velocity	8.47	8.47	8.06	7.30	8.05		8.47	8.47	8.06	7.30	8.47	7.66					

## 2007 Japanese National High School Championships (Saga, JPN)

## FINAL

date 02-Aug-07

Hitorara (2007) - 60st high school championships: JAF scientific committee - biomechanics data collection

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Mabuchi, Kanade (JPN) (198)</b> time	6.83	13.57	21.05	28.49	35.70	42.88	50.28	58.01	58.01	1 / 1							

reaction time	interval	6.74	7.48	7.44	7.21	7.18	7.40	7.73		# of strides	13.57	14.92	14.39	15.13	28.49	29.52	1.03	
	velocity	7.32	7.42	6.68	6.72	6.93	6.96	6.76	6.47	6.90	7.37	6.70	6.95	6.61	7.02	6.78		
<b>Kitamura, Chisato (JPN) (19)</b>	time	7.43	14.31	21.92	29.36	36.41	43.46	50.74	58.38	58.38	/ 2							
reaction time	interval		6.88	7.61	7.44	7.05	7.05	7.28	7.64		# of strides	14.31	15.05	14.10	14.92	29.36	29.02	-0.34
	velocity	6.73	7.27	6.57	6.72	7.09	7.09	6.87	6.54	6.85		6.99	6.64	7.09	6.70	6.81	6.89	
<b>Yukina, Murakami (JPN)</b>	time	7.32	14.43	22.02	29.35	36.45	43.71	51.08	58.69	58.69	/ 3							
reaction time	interval		7.11	7.59	7.33	7.10	7.26	7.37	7.61		# of strides	14.43	14.92	14.36	14.98	29.35	29.34	-0.01
	velocity	6.83	7.03	6.59	6.82	7.04	6.89	6.78	6.57	6.82		6.93	6.70	6.96	6.68	6.81	6.82	

## 2007 European Cup (Munich, GER)

## FINAL

date 23-Jun-07

Graubner (2007) - <http://www.fgs.uni-halle.de>

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Halkia, Fani (GRE) (1979)</b>	time		12.92		24.78		37.46		51.85	51.85	/ 1							
reaction time	interval	0.180			11.86		12.68		14.39		# of strides	12.92	11.86	12.68	14.39	24.78	27.07	2.29
	velocity		7.74		8.43		7.89		6.95	7.71		7.74	8.43	7.89	6.95	8.07	7.39	
<b>Kashcheyeva, Zhanna (RUS)</b>	time		12.70		24.58		37.34		51.87	51.87	/ 2							
reaction time	interval	0.150			11.88		12.76		14.53		# of strides	12.70	11.88	12.76	14.53	24.58	27.29	2.71
	velocity		7.87		8.42		7.84		6.88	7.71		7.87	8.42	7.84	6.88	8.14	7.33	
<b>Yushchanka, Yulyana (BLR)</b>	time		12.66		24.55		37.38		52.09	52.09	/ 3							
reaction time	interval	0.217			11.89		12.83		14.71		# of strides	12.66	11.89	12.83	14.71	24.55	27.54	2.99
	velocity		7.90		8.41		7.79		6.80	7.68		7.90	8.41	7.79	6.80	8.15	7.26	
<b>Hoffmann, Claudia (GER) (1)</b>	time		12.71		24.68		37.64		52.31	52.31	/ 4							
reaction time	interval	0.176			11.97		12.96		14.67		# of strides	12.71	11.97	12.96	14.67	24.68	27.63	2.95
	velocity		7.87		8.35		7.72		6.82	7.65		7.87	8.35	7.72	6.82	8.10	7.24	
<b>Radecka-Pakaszewska, Zuzana</b>	time		12.52		24.61		37.67		52.59	52.59	/ 5							
reaction time	interval	0.218			12.09		13.06		14.92		# of strides	12.52	12.09	13.06	14.92	24.61	27.98	3.37
	velocity		7.99		8.27		7.66		6.70	7.61		7.99	8.27	7.66	6.70	8.13	7.15	
<b>Désert-Marillier, Solen (FRA)</b>	time		13.01		25.47		38.76		52.60	52.60	/ 6							
reaction time	interval	0.342			12.46		13.29		13.84		# of strides	13.01	12.46	13.29	13.84	25.47	27.13	1.66
	velocity		7.69		8.03		7.52		7.23	7.60		7.69	8.03	7.52	7.23	7.85	7.37	
<b>Shcherbak, Oksana (UKR) (1)</b>	time		13.29		25.71		38.80		52.63	52.63	/ 7							
reaction time	interval	0.192			12.42		13.09		13.83		# of strides	13.29	12.42	13.09	13.83	25.71	26.92	1.21
	velocity		7.52		8.05		7.64		7.23	7.60		7.52	8.05	7.64	7.23	7.78	7.43	
<b>Recio, Belén (ESP) (1980)</b>	time		13.30		25.76		38.91		54.16	54.16	/ 8							
reaction time	interval	0.228			12.46		13.15		15.25		# of strides	13.30	12.46	13.15	15.25	25.76	28.40	2.64
	velocity		7.52		8.03		7.60		6.56	7.39		7.52	8.03	7.60	6.56	7.76	7.04	

## 2007 USATF National Championships (Indianapolis, IN)

## FINAL

date 23-Jun-07

Vazel (2011) - speed reserve in the 400m

<b>Trotter, DeeDee (USA) (1982)</b>																			
		no information available																	
<b>Hastings, Natasha (USA) (1986)</b>																			
		no information available																	
<b>Wineberg, Mary (USA) (1980)</b>																			
		no information available																	
<b>Richards, Sanya (USA) (1985)</b>	time		11.85		23.40		35.90		50.68	50.68	4 / 4								
reaction time	interval				11.55		12.50		14.78		# of strides	11.85	11.55	12.50	14.78	23.40	27.28	3.88	
	velocity		8.44		8.66		8.00		6.77	7.89		193.5	8.44	8.66	8.00	6.77	8.55	7.33	
<b>Henderson, Monique (USA) (1983)</b>																			
		no information available								50.82		8 / 5							
<b>Hennagan, Monique (USA) (1976)</b>																			
		no information available								51.28		3 / 6							
<b>Robinson, Moushumi (USA) (1981)</b>																			
		no information available								51.47		2 / 7							
<b>Cox, Shana (USA) (1985)</b>																			
		no information available								52.23		1 / 8							

## 2006 Seiko Super Grand Prix (Yokohama, JPN)

## FINAL

date 24-Sep-06

Hisashi (2007) - Super Grand Prix 2006 - sprinting speed changes in the 400m

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Amertil, Christine (BAH) (19)</b>	time	6.7	12.3	18.1	24.0	30.3	36.7	43.5	50.68	50.68	6 / 1							
reaction time	interval		5.60	5.80	5.90	6.30	6.40	6.80	7.18		# of strides	12.30	11.70	12.70	13.98	24.00	26.68	2.68
	velocity	7.46	8.93	8.62	8.47	7.94	7.81	7.35	6.96	7.89		8.13	8.55	7.87	7.15	8.33	7.50	
<b>Tanno, Asami (JPN) (1985)</b>	time	6.8	12.6	18.6	24.7	31.2	38.2	45.6	53.54	53.54	5 / 2							
reaction time	interval		5.80	6.00	6.10	6.50	7.00	7.40	7.94		# of strides	12.60	12.10	13.50	15.34	24.70	28.84	4.14
	velocity	7.35	8.62	8.33	8.20	7.69	7.14	6.76	6.30	7.47		7.94	8.26	7.41	6.52	8.10	6.93	
<b>Sato, Mayu (JPN) (1982)</b>	time	6.8	12.9	19.0	25.3	31.8	38.7	45.9	53.56	53.56	2 / 3							
reaction time	interval		6.10	6.10	6.30	6.50	6.90	7.20	7.66		# of strides	12.90	12.40	13.40	14.86	25.30	28.26	2.96
	velocity	7.35	8.20	8.20	7.94	7.69	7.25	6.94	6.53	7.47		7.75	8.06	7.46	6.73	7.91	7.08	
<b>Takeuchi, Masako (JPN) (198)</b>	time	6.9	12.9	18.9	25.2	31.8	38.8	46.1	54.04	54.04	4 / 4							
reaction time	interval		6.00	6.00	6.30	6.60	7.00	7.30	7.94		# of strides	12.90	12.30	13.60	15.24	25.20	28.84	3.64
	velocity	7.25	8.33	8.33	7.94	7.58	7.14	6.85	6.30	7.40		7.75	8.13	7.35	6.56	7.94	6.93	
<b>Tanaka, Chisato (JPN) (1988)</b>	time	7.3	13.5	19.7	26.1	32.7	39.8	47.3	55.09	55.09	7 / 5							
reaction time	interval		6.20	6.20	6.40	6.60	7.10	7.50	7.79		# of strides	13.50	12.60	13.70	15.29	26.10	28.99	2.89
	velocity	6.85	8.06	8.06	7.81	7.58	7.04	6.67	6.42	7.26		7.41	7.94	7.30	6.54	7.66	6.90	
<b>Naruse, Miki (JPN) (1982)</b>	time	7.1	13.2	19.3	26.0	32.9	40.2	47.7	55.36	55.36	8 / 6							
reaction time	interval		6.10	6.10	6.70	6.90	7.30	7.50	7.66		# of strides	13.20	12.80	14.20	15.16	26.00	29.36	3.36

	velocity	7.04	8.20	8.20	7.46	7.25	6.85	6.67	6.53	7.23		7.58	7.81	7.04	6.60	7.69	6.81	
<b>Muto, Nana (JPN) (1991)</b>	time	6.9	12.9	19.1	25.6	32.4	39.8	47.5	55.53	55.53	3 / 7							
	reaction time		6.00	6.20	6.50	6.80	7.40	7.70	8.03		# of strides	12.90	12.70	14.20	15.73	25.60	29.93	4.33
	velocity	7.25	8.33	8.06	7.69	7.35	6.76	6.49	6.23	7.20		7.75	7.87	7.04	6.36	7.81	6.68	
<b>Kimura, Tomomi (JPN) (1988)</b>	time	7.1	13.4	19.7	26.4	33.4	40.7	48.2	56.48	56.48	9 / 8							
	reaction time		6.30	6.30	6.70	7.00	7.30	7.50	8.28		# of strides	13.40	13.00	14.30	15.78	26.40	30.08	3.68
	velocity	7.04	7.94	7.94	7.46	7.14	6.85	6.67	6.04	7.08		7.46	7.69	6.99	6.34	7.58	6.65	

## 2006 IAAF World Cup (Athens, GRE) (TV Analysis)

## FINAL

date 16-Sep-06

Graubner (2008) - <http://www.fgs.uni-halle.de>

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Richards, Sanya (USA) (1985)</b>	time	11.93		23.82		35.83		48.70	48.70	7 / 1							
	reaction time	0.175		11.89		12.01		12.87	AR	# of strides	11.93	11.89	12.01	12.87	23.82	24.88	1.06
	velocity	8.38		8.41		8.33		7.77	8.21		8.38	8.41	8.33	7.77	8.40	8.04	
<b>Stambolova, Vania (BUL) (1988)</b>	time	0.207							50.09	8 / 2							
<b>Williams, Novlene (JAM) (1991)</b>	time	0.284							50.24	5 / 3							
<b>Veshkurova, Tatyana (RUS) (1988)</b>	time	0.322							50.50	1 / 4							
<b>Halkia, Fani (GRE) (1979)</b>	time	0.160							50.94	2 / 5							
<b>Thiam, Amy Mbacke (SEN) (1988)</b>	time	0.320							51.39	9 / 6							
<b>Tereshkova, Olga (KAZ) (1988)</b>	time	0.247							52.57	6 / 7							
<b>Prokopek, Grazyna (POL) (1988)</b>	time	0.259							53.29	4 / 8							
<b>Hayward, Rosemary (AUS) (1988)</b>	time	0.225							54.01	3 / 9							

## 2006 European Championships (Göteborg, SWE)

## FINAL

date 10-Aug-06

Behm (2006) - *Championnats d'Europe Göteborg 2006... Le 400m avec ou sans obstacles*

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Stambolova, Vania (BUL) (1988)</b>	time			23.7		35.8		49.85	49.85	1 / 1							
	reaction time					12.10		14.05		# of strides		23.70	12.10	14.05	23.70	26.15	2.45
	velocity			8.44		16.53		7.12	8.02			4.22	8.26	7.12	8.44	7.65	
<b>Veshkurova, Tatyana (RUS) (1988)</b>	time			23.9		36.5		50.15	50.15	1 / 2							
	reaction time					12.60		13.65		# of strides		23.90	12.60	13.65	23.90	26.25	2.35
	velocity			8.37		15.87		7.33	7.98			4.18	7.94	7.33	8.37	7.62	
<b>Zaytseva, Olga (RUS) (1984)</b>	time			23.3		35.6		50.28	50.28	1 / 3							
	reaction time					12.30		14.68		# of strides		23.30	12.30	14.68	23.30	26.98	3.68
	velocity			8.58		16.26		6.81	7.96			4.29	8.13	6.81	8.58	7.41	
<b>Dimitrova, Mariyana (BUL) (1988)</b>	time			24.6		36.8		50.64	50.64	1 / 4							
	reaction time					12.20		13.84	PB	# of strides		24.60	12.20	13.84	24.60	26.04	1.44
	velocity			8.13		16.39		7.23	7.90			4.07	8.20	7.23	8.13	7.68	
<b>Usovich, Ilona (BLR) (1982)</b>	time			23.8		36.4		50.69	50.69	1 / 5							
	reaction time					12.60		14.29	NR	# of strides		23.80	12.60	14.29	23.80	26.89	3.09
	velocity			8.40		15.87		7.00	7.89			4.20	7.94	7.00	8.40	7.44	
<b>Sanders, Nicola (GBR) (1982)</b>	time			24.4		37.0		50.87	50.87	1 / 6							
	reaction time					12.60		13.87		# of strides		24.40	12.60	13.87	24.40	26.47	2.07
	velocity			8.20		15.87		7.21	7.86			4.10	7.94	7.21	8.20	7.56	
<b>Pospelova, Svetlana (RUS) (1988)</b>	time			24.9		37.1		50.90	50.90	1 / 7							
	reaction time					12.20		13.80		# of strides		24.90	12.20	13.80	24.90	26.00	1.10
	velocity			8.03		16.39		7.25	7.86			4.02	8.20	7.25	8.03	7.69	
<b>Cuddihy, Joanne (IRL) (1984)</b>	time			24.3		37.0		51.46	51.46	1 / 8							
	reaction time					12.70		14.46		# of strides		24.30	12.70	14.46	24.30	27.16	2.86
	velocity			8.23		15.75		6.92	7.77			4.12	7.87	6.92	8.23	7.36	

## Semi-Final 1 (TV A) date 09-Aug-06

Graubner (2008) - <http://www.fgs.uni-halle.de>

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Stambolova, Vania (BUL) (1988)</b>	time	12.67		24.33		36.58		49.69	49.69	1 / 1							
	reaction time	0.232		11.66		12.25		13.11		# of strides	12.67	11.66	12.25	13.11	24.33	25.36	1.03
	velocity	7.89		8.58		8.16		7.63	8.05		7.89	8.58	8.16	7.63	8.22	7.89	

## 2006 USATF National Championships (Indianapolis, IN)

## FINAL

date 24-Jun-06

USATF Women's Sprint Development (2006)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Richards, Sanya (USA) (1985)</b>	time	11.40	17.11	23.37	29.46	35.78	42.36	49.27	49.27	4 / 1							
	reaction time		5.71	6.26	6.09	6.32	6.58	6.91		# of strides	11.40	11.97	12.41	13.49	23.37	25.90	2.53
	velocity	8.77	8.76	7.99	8.21	7.91	7.60	7.24	8.12		190.0	8.77	8.35	8.06	7.41	8.56	7.72
<b>Trotter, De'Hashia (Dee Dee) (1988)</b>	time	12.12	17.58	24.07	30.01	36.24	43.01	50.40	50.40	6 / 2							
	reaction time		5.46	6.49	5.94	6.23	6.77	7.39		# of strides	12.12	11.95	12.17	14.16	24.07	26.33	2.26
	velocity	8.25	9.16	7.70	8.42	8.03	7.39	6.77	7.94		191.2	8.25	8.37	8.22	7.06	8.31	7.60
<b>Henderson, Monique (USA) (1988)</b>	time	11.76	17.83	23.84	29.95	36.48	43.22	50.71	50.71	3 / 3							
	reaction time		6.07	6.01	6.11	6.53	6.74	7.49		# of strides	11.76	12.08	12.64	14.23	23.84	26.87	3.03
	velocity	8.50	8.24	8.32	8.18	7.66	7.42	6.68	7.89		191.5	8.50	8.28	7.91	7.03	8.39	7.44
<b>Robinson, Moushaumi (USA) (1988)</b>	time	11.96	17.93	24.34	30.68	37.22	44.04	51.13	51.13	7 / 4							
	reaction time		5.97	6.41	6.34	6.54	6.82	7.09		# of strides	11.96	12.38	12.88	13.91	24.34	26.79	2.45
	velocity	8.36	8.38	7.80	7.89	7.65	7.33	7.05	7.82		8.36	8.08	7.76	7.19	8.22	7.47	
<b>Danner, Mary (USA) (1980)</b>	time	12.02	18.32	24.39	30.73	37.37	44.26	51.27	51.27	2 / 5							



reaction time	interval	6.30	6.07	6.34	6.64	6.89	7.01	<b>PB</b>	# of strides	12.02	12.37	12.98	13.90	24.39	26.88	2.49	
	velocity	8.32	7.94	8.24	7.89	7.53	7.26	7.13	7.80	8.32	8.08	7.70	7.19	8.20	7.44		
<b>Cox, Crystal (USA) (1979)</b>	time	11.82	17.50	23.69	29.85	36.45	43.63	51.34	51.34	5 / 6							
reaction time	interval	5.68	6.19	6.16	6.60	7.18	7.71			# of strides	11.82	11.87	12.76	14.89	23.69	27.65	3.96
	velocity	8.46	8.80	8.08	8.12	7.58	6.96	6.49	7.79		8.46	8.42	7.84	6.72	8.44	7.23	
<b>Cox, Shana (USA) (1985)</b>	time	12.48	18.38	24.71	30.88	37.40	44.14	51.36	51.36	8 / 7							
reaction time	interval	5.90	6.33	6.17	6.52	6.74	7.22			# of strides	12.48	12.23	12.69	13.96	24.71	26.65	1.94
	velocity	8.01	8.47	7.90	8.10	7.67	7.42	6.93	7.79		8.01	8.18	7.88	7.16	8.09	7.50	
<b>Hennagan, Monique (USA) (time)</b>	time	12.04	18.17	24.18	30.46	37.13	44.04	51.46	51.46	1 / 8							
reaction time	interval	6.13	6.01	6.28	6.67	6.91	7.42			# of strides	12.04	12.14	12.95	14.33	24.18	27.28	3.10
	velocity	8.31	8.16	8.32	7.96	7.50	7.24	6.74	7.77		8.31	8.24	7.72	6.98	8.27	7.33	

## 2006 USATF National Junior Championships (Indianapolis, IN)

## FINAL

date 24-Jun-06

USATF Women's Sprint Development (2006)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Beard, Jessica (USA) (1989)</b>	time	13.13	18.85	25.67	32.02	38.42	44.95	51.89	51.89	6 / 1								
reaction time	interval	5.72	6.82	6.35	6.40	6.53	6.94	<b>PB</b>		# of strides	13.13	12.54	12.75	13.47	25.67	26.22	0.55	
	velocity	7.62	8.74	7.33	7.87	7.81	7.66	7.20	7.71		7.62	7.97	7.84	7.42	7.79	7.63		
<b>Cross, Brandi (USA) (1988)</b>	time	12.78	18.80	24.19	31.29	37.80	44.60	51.96	51.96	4 / 2								
reaction time	interval	6.02	5.39	7.10	6.51	6.80	7.36	<b>PB</b>		# of strides	12.78	11.41	13.61	14.16	24.19	27.77	3.58	
	velocity	7.82	8.31	9.28	7.04	7.68	7.35	6.79	7.70		7.82	8.76	7.35	7.06	8.27	7.20		
<b>Williams, Sa'de (USA) (1989)</b>	time	12.76	18.67	23.87	31.29	37.82	44.82	52.54	52.54	3 / 3								
reaction time	interval	5.91	5.20	7.42	6.53	7.00	7.72			# of strides	12.76	11.11	13.95	14.72	23.87	28.67	4.80	
	velocity	7.84	8.46	9.62	6.74	7.66	7.14	6.48	7.61		7.84	9.00	7.17	6.79	8.38	6.98		
<b>Young, Jessica (USA) (1987)</b>	time	12.71	18.82	25.22	31.65	38.41	45.61	53.39	53.39	5 / 4								
reaction time	interval	6.11	6.40	6.43	6.76	7.20	7.78	<b>PB</b>		# of strides	12.71	12.51	13.19	14.98	25.22	28.17	2.95	
	velocity	7.87	8.18	7.81	7.78	7.40	6.94	6.43	7.49		7.87	7.99	7.58	6.68	7.93	7.10		
<b>Humphrey, Erin (USA) (1988)</b>	time	12.93	19.30	25.36	31.99	39.02	46.05	53.41	53.41	7 / 5								
reaction time	interval	6.37	6.06	6.63	7.03	7.03	7.36	<b>PB</b>		# of strides	12.93	12.43	13.66	14.39	25.36	28.05	2.69	
	velocity	7.73	7.85	8.25	7.54	7.11	7.11	6.79	7.49		7.73	8.05	7.32	6.95	7.89	7.13		
<b>Hilaire, Elan (USA) (1990)</b>	time	13.36	19.52	23.47	32.67	39.64	46.66	54.23	54.23	1 / 6								
reaction time	interval	6.16	3.95	9.20	6.97	7.02	7.57	<b>PB</b>		# of strides	13.36	10.11	16.17	14.59	23.47	30.76	7.29	
	velocity	7.49	8.12	12.66	5.43	7.17	7.12	6.61	7.38		7.49	9.89	6.18	6.85	8.52	6.50		
<b>Blake, Dominique (USA) (1991)</b>	time	12.98	18.92	25.27	31.72	38.74	46.43	54.77	54.77	8 / 7								
reaction time	interval	5.94	6.35	6.45	7.02	7.69	8.34	<b>DV</b>		# of strides	12.98	12.29	13.47	16.03	25.27	29.50	4.23	
	velocity	7.70	8.42	7.87	7.75	7.12	6.50	6.00	7.30		7.70	8.14	7.42	6.24	7.91	6.78		
<b>Graves-Fulgham, Mandela (USA) (1983)</b>	time	13.06	19.10	23.64	32.11	39.39	46.88	55.11	55.11	2 / 7								
reaction time	interval	6.04	4.54	8.47	7.28	7.49	8.23			# of strides	13.06	10.58	15.75	15.72	23.64	31.47	7.83	
	velocity	7.66	8.28	11.01	5.90	6.87	6.68	6.08	7.26		7.66	9.45	6.35	6.36	8.46	6.36		

## 2005 Seiko Super Grand Prix (Yokohama, JPN)

## FINAL

date 19-Sep-05

Masaaki (2006) - time analysis in the 400m at the Seiko Super Grand Prix

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Trotter, De'Hashia (Dee Dee)</b>	time	12.71		24.65	36.43	42.93	50.03	50.03	50.03	5 / 1								
reaction time	interval			11.94	11.78	6.50	7.10			# of strides	12.71	11.94	11.78	13.60	24.65	25.38	0.73	
	velocity	7.87		8.38	8.49	7.69	7.04		8.00		7.87	8.38	8.49	7.35	8.11	7.88		
<b>Amertil, Christine (BAH) (1991)</b>	time	12.53		24.40	36.42	43.03	50.09	50.09	50.09	6 / 2								
reaction time	interval			11.87	12.02	6.61	7.06	<b>PB</b>		# of strides	12.53	11.87	12.02	13.67	24.40	25.69	1.29	
	velocity	7.98		8.42	8.32	7.56	7.08	7.99			7.98	8.42	8.32	7.32	8.20	7.79		
<b>Usovich, Ilona (BLR) (1982)</b>	time	12.73		24.89	37.53	44.32	51.45	51.45	51.45	3 / 3								
reaction time	interval			12.16	12.64	6.79	7.13			# of strides	12.73	12.16	12.64	13.92	24.89	26.56	1.67	
	velocity	7.86		8.22	7.91	7.36	7.01	7.77			7.86	8.22	7.91	7.18	8.04	7.53		
<b>Tanno, Asami (JPN) (1985)</b>	time	12.83		25.14	37.80	44.62	51.80	51.80	51.80	4 / 4								
reaction time	interval			12.31	12.66	6.82	7.18	<b>NR</b>		# of strides	12.83	12.31	12.66	14.00	25.14	26.66	1.52	
	velocity	7.79		8.12	7.90	7.33	6.96	7.72			7.79	8.12	7.90	7.14	7.96	7.50		
<b>Yoshida, Makiko (JPN) (1976)</b>	time	12.74		25.22	38.22	45.49	53.42	53.42	53.42	7 / 5								
reaction time	interval			12.48	13.00	7.27	7.93			# of strides	12.74	12.48	13.00	15.20	25.22	28.20	2.98	
	velocity	7.85		8.01	7.69	6.88	6.31	7.49			7.85	8.01	7.69	6.58	7.93	7.09		
<b>Kubokura, Satomi (JPN) (1991)</b>	time	12.82		25.51	38.90	45.95	53.80	53.80	53.80	2 / 6								
reaction time	interval			12.69	13.39	7.05	7.85			# of strides	12.82	12.69	13.39	14.90	25.51	28.29	2.78	
	velocity	7.80		7.88	7.47	7.09	6.37	7.43			7.80	7.88	7.47	6.71	7.84	7.07		
<b>Aoki, Sayaka (JPN) (1986)</b>	time	13.32		26.03	38.93	46.25	53.96	53.96	53.96	8 / 7								
reaction time	interval			12.71	12.90	7.32	7.71	<b>PB</b>		# of strides	13.32	12.71	12.90	15.03	26.03	27.93	1.90	
	velocity	7.51		7.87	7.75	6.83	6.49	7.41			7.51	7.87	7.75	6.65	7.68	7.16		
<b>Horie, Mayu (JPN) (1986)</b>	time	13.25		25.91	39.14	46.61	54.59	54.59	54.59	9 / 8								
reaction time	interval			12.66	13.23	7.47	7.98	<b>PB</b>		# of strides	13.25	12.66	13.23	15.45	25.91	28.68	2.77	
	velocity	7.55		7.90	7.56	6.69	6.27	7.33			7.55	7.90	7.56	6.47	7.72	6.97		
<b>Sato, Mayu (JPN) (1983)</b>	time	12.85		25.63	39.25	46.58	54.70	54.70	54.70	1 / 9								
reaction time	interval			12.78	13.62	7.33	8.12			# of strides	12.85	12.78	13.62	15.45	25.63	29.07	3.44	
	velocity	7.78		7.82	7.34	6.82	6.16	7.31			7.78	7.82	7.34	6.47	7.80	6.88		

## 2005 Weltklasse (Zurich, SUI)

FINAL		date	ferrari (2009) - Split 100 metri uomini e donne (www.noivelocisti.net/forum?func=view&catid=9&id=1813)																
		19-Aug-05	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Richards, Sanya (USA) (1985)	time			11.9		23.7		35.6		48.92	48.92	1 / 1							
	reaction time	0.269				11.8		11.9		13.32	PB	# of strides	11.90	11.80	11.90	13.32	23.70	25.22	1.52
	interval												8.40	8.47	8.40	7.51	8.44	7.93	
Williams-Darling, Tonique (B)	time			12.0		23.3		35.5		49.30	49.30	1 / 2							
	reaction time	0.275				11.3		12.2		13.80		# of strides	12.00	11.30	12.20	13.80	23.30	26.00	2.70
	interval												8.33	8.85	8.20	7.25	8.58	7.69	
velocity																			

## 2005 IAAF World Championships (Helsinki, FIN)

FINAL		date	Butler (2013) - IAAF world championships statistics handbook- moscow 2013																
		10-Aug-05	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Williams-Darling, Tonique (B)	time							35.7		49.6	49.55	6 / 1							
	reaction time	0.162								13.9		# of strides							13.85
	interval																		7.22
velocity																			
Richards, Sanya (USA) (1985)	time		12.4		23.5		35.6		49.7	49.74	3 / 2								
	reaction time	0.155				11.1		12.1		14.1		# of strides	12.40	11.10	12.10	14.10	23.50	26.20	2.70
	interval												8.06	9.01	8.26	7.09	8.51	7.63	
velocity																			
Guevara, Ana (MEX) (1977)	time							36.1		49.8	49.81	4 / 3							
	reaction time	0.144								13.7		# of strides							13.71
	interval																		7.29
velocity																			
Pospelova, Svetlana (RUS) (*)	time							35.8		50.1	50.11	5 / 4							
	reaction time	0.130								14.3		# of strides							14.31
	interval																		6.99
velocity																			
Trotter, De'Hashia (Dee Dee)	time							36.5		51.1	51.14	7 / 5							
	reaction time	0.176								14.6		# of strides							14.64
	interval																		6.83
velocity																			
Zykina, Olesya (RUS) (1980)	time							36.7		51.2	51.24	2 / 6							
	reaction time	0.199								14.5		# of strides							14.54
	interval																		6.88
velocity																			
Henderson, Monique (USA)	time							36.3		51.8	51.77	1 / 7							
	reaction time	0.201								15.5		# of strides							15.47
	interval																		6.46
velocity																			
Thiam, Amy Mbacké (SEN) (*)	time							36.5		52.2	52.22	8 / 8							
	reaction time	0.169								15.7		# of strides							15.72
	interval																		6.36
velocity																			

## Semi-Final 3

Semi-Final 3		date	Butler (2013) - IAAF world championships statistics handbook- moscow 2013																
		08-Aug-05	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Williams-Darling, Tonique (B)	time							35.5		49.7	49.69	4 / 1							
	reaction time	0.176								14.2		# of strides							14.19
	interval																		7.05
velocity																			

## 2005 USATF National Championships (Carson, CA)

FINAL		date	USATF Women's Sprint Development (2005)																
		25-Jun-05	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Richards, Sanya (USA) (1985)	time		12.08	17.90	23.99	29.85	35.99	42.44	49.28	49.28	4 / 1								
	reaction time				5.82	6.09	5.86	6.14	6.45	6.84	PB	# of strides	12.08	11.91	12.00	13.29	23.99	25.29	1.30
	interval												8.28	8.40	8.33	7.52	8.34	7.91	
velocity																			
Trotter, De'Hashia (Dee Dee)	time		12.45	18.28	24.46	30.50	36.60	43.04	49.88	49.88	5 / 2								
	reaction time				5.83	6.18	6.04	6.10	6.44	6.84	PB	# of strides	12.45	12.01	12.14	13.28	24.46	25.42	0.96
	interval												8.03	8.33	8.24	7.53	8.18	7.87	
velocity																			
Henderson, Monique (USA)	time		12.31	18.06	24.09	30.18	36.35	42.86	49.96	49.96	6 / 3								
	reaction time				5.75	6.03	6.09	6.17	6.51	7.10	PB	# of strides	12.31	11.78	12.26	13.61	24.09	25.87	1.78
	interval												8.12	8.49	8.16	7.35	8.30	7.73	
velocity																			
Robinson, Moushaumi (USA)	time		12.42	18.39	24.58	30.69	36.80	43.33	50.38	50.38	7 / 4								
	reaction time				5.97	6.19	6.11	6.11	6.53	7.05	PB	# of strides	12.42	12.16	12.22	13.58	24.58	25.80	1.22
	interval												8.05	8.22	8.18	7.36	8.14	7.75	
velocity																			
Hennagan, Monique (USA) (*)	time		12.04	17.72	23.72	29.83	36.28	43.18	50.76	50.76	3 / 5								
	reaction time				5.68	6.00	6.11	6.45	6.90	7.58		# of strides	12.04	11.68	12.56	14.48	23.72	27.04	3.32
	interval												8.31	8.56	7.96	6.91	8.43	7.40	
velocity																			
Reid, Suziann (USA) (1977)	time		12.31	18.06	24.36	30.63	37.07	42.54	51.45	51.45	1 / 6								
	reaction time				5.75	6.30	6.27	6.44	5.47	8.91		# of strides	12.31	12.05	12.71	14.38	24.36	27.09	2.73
	interval												8.12	8.30	7.87	6.95	8.21	7.38	
velocity																			
Clay, Julian (USA) (1977)	time		12.31	18.12	24.41	30.78	37.29	42.79	51.70	51.70	2 / 7								
	reaction time				5.81	6.29	6.37	6.51	5.50	8.91		# of strides	12.31	12.10	12.88	14.41	24.41	27.29	2.88
	interval												8.12	8.26	7.76	6.94	8.19	7.33	
velocity																			
Smith, Stephanie (USA) (198)	time		12.86	18.87	24.93	31.15	37.63	44.49	51.83	51.83	8 / 8								
	reaction time				6.01	6.06	6.22	6.48	6.86	7.34		# of strides	12.86	12.07	12.70	14.20	24.93	26.90	1.97
	interval												7.78	8.29	7.87	7.04	8.02	7.43	
velocity																			





## FINAL

date 17-Jul-04

USATF Women's Sprint Development (2004)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Hennagan, Monique (USA)</b> (time)		12.03		23.62	29.85	36.12	42.43	49.56	49.56	7 / 1							
reaction time				11.59	6.23	6.27	6.31	7.13	<b>PB</b>	# of strides	12.03	11.59	12.50	13.44	23.62	25.94	2.32
velocity		8.31		8.63	8.03	7.97	7.92	7.01	8.07		8.31	8.63	8.00	7.44	8.47	7.71	
<b>Richards, Sanya (USA)</b> (1985) (time)		12.00		23.87	30.00	36.20	42.59	49.89	49.89	3 / 2							
reaction time				11.87	6.13	6.20	6.39	7.30	<b>AJR</b>	# of strides	12.00	11.87	12.33	13.69	23.87	26.02	2.15
velocity		8.33		8.42	8.16	8.06	7.82	6.85	8.02		8.33	8.42	8.11	7.30	8.38	7.69	
<b>Trotter, De'Hashia (Dee Dee)</b> (time)		12.43		24.19	30.45	36.77	43.06	50.28	50.28	4 / 3							
reaction time				11.76	6.26	6.32	6.29	7.22	<b>PB</b>	# of strides	12.43	11.76	12.58	13.51	24.19	26.09	1.90
velocity		8.05		8.50	7.99	7.91	7.95	6.93	7.96		8.05	8.50	7.95	7.40	8.27	7.67	
<b>Cox, Crystal (USA)</b> (1979) (time)		12.30		23.64	29.73	36.25	42.91	50.52	50.52	2 / 4							
reaction time				11.34	6.09	6.52	6.66	7.61	<b>PB</b>	# of strides	12.30	11.34	12.61	14.27	23.64	26.88	3.24
velocity		8.13		8.82	8.21	7.67	7.51	6.57	7.92		8.13	8.82	7.93	7.01	8.46	7.44	
<b>Henderson, Monique (USA)</b> (time)		12.06		23.89	30.18	36.59	43.08	50.75	50.75	6 / 5							
reaction time				11.83	6.29	6.41	6.49	7.67		# of strides	12.06	11.83	12.70	14.16	23.89	26.86	2.97
velocity		8.29		8.45	7.95	7.80	7.70	6.52	7.88		8.29	8.45	7.87	7.06	8.37	7.45	
<b>Robinson, Moushaumi (USA)</b> (time)		12.22		24.04	30.43	37.01	43.72	51.54	51.54	8 / 6							
reaction time				11.82	6.39	6.58	6.71	7.82	<b>PB</b>	# of strides	12.22	11.82	12.97	14.53	24.04	27.50	3.46
velocity		8.18		8.46	7.82	7.60	7.45	6.39	7.76		8.18	8.46	7.71	6.88	8.32	7.27	
<b>Reid, Suziann (USA)</b> (1977) (time)		12.25		24.60	30.78	38.39	44.18	51.61	51.61	5 / 7							
reaction time				12.35	6.18	7.61	5.79	7.43		# of strides	12.25	12.35	13.79	13.22	24.60	27.01	2.41
velocity		8.16		8.10	8.09	6.57	8.64	6.73	7.75		8.16	8.10	7.25	7.56	8.13	7.40	
<b>Dunn, Debbie (USA)</b> (1978) (time)		12.06		23.47	29.61	36.32	43.50	51.93	51.93	1 / 8							
reaction time				11.41	6.14	6.71	7.18	8.43		# of strides	12.06	11.41	12.85	15.61	23.47	28.46	4.99
velocity		8.29		8.76	8.14	7.45	6.96	5.93	7.70		8.29	8.76	7.78	6.41	8.52	7.03	

## Semi-Final 2

date 15-Jul-04

USATF Women's Sprint Development (2004)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Richards, Sanya (USA)</b> (1985) (time)		11.99		23.86	30.65	36.67	43.21	50.34	50.34	3 / 1							
reaction time				11.87	6.79	6.02	6.54	7.13		# of strides	11.99	11.87	12.81	13.67	23.86	26.48	2.62
velocity		8.34		8.42	7.36	8.31	7.65	7.01	7.95		193.0	8.34	8.42	7.81	7.32	8.38	7.55
<b>Reid, Suziann (USA)</b> (1977) (time)		12.25		24.64	30.65	37.17	43.78	51.14	51.14	5 / 2							
reaction time				12.39	6.01	6.52	6.61	7.36		# of strides	12.25	12.39	12.53	13.97	24.64	26.50	1.86
velocity		8.16		8.07	8.32	7.67	7.56	6.79	7.82		193.0	8.16	8.07	7.98	7.16	8.12	7.55
<b>Robinson, Moushaumi (USA)</b> (time)		12.16		30.15	37.07	43.91	51.72	51.72	51.72	2 / 3							
reaction time				17.99	6.92	6.84	7.81		<b>PB</b>	# of strides	12.16			14.65			
velocity		8.22		8.34	7.23	7.31	6.40		7.73		8.22			6.83			
<b>Dunn, Debbie (USA)</b> (1978) (time)		12.76		24.78	30.75	37.15	43.91	51.84	51.84	8 / 4							
reaction time				12.02	5.97	6.40	6.76	7.93		# of strides	12.76	12.02	12.37	14.69	24.78	27.06	2.28
velocity		7.84		8.32	8.38	7.81	7.40	6.31	7.72		192.2	7.84	8.32	8.08	6.81	8.07	7.39
<b>Washington, Demetria (USA)</b> (time)		12.15		24.11	30.73	37.39	44.44	52.27	52.27	4 / 5							
reaction time				11.96	6.62	6.66	7.05	7.83		# of strides	12.15	11.96	13.28	14.88	24.11	28.16	4.05
velocity		8.23		8.36	7.55	7.51	7.09	6.39	7.65		192.7	8.23	8.36	7.53	6.72	8.30	7.10
<b>Davis, Kia (USA)</b> (1976) (time)		12.41		30.64	37.39	44.96	52.27	52.27	52.27	1 / 6							
reaction time				18.23	6.75	7.57	7.31			# of strides	12.41			14.88			
velocity		8.06		8.23	7.41	6.61	6.84		7.65		8.06			6.72			
<b>Greggs, Charlette (USA)</b> (1979) (time)		12.60		24.34	30.60	37.27	44.41	52.87	52.87	7 / 7							
reaction time				11.74	6.26	6.67	7.14	8.46		# of strides	12.60	11.74	12.93	15.60	24.34	28.53	4.19
velocity		7.94		8.52	7.99	7.50	7.00	5.91	7.57		181.0	7.94	8.52	7.73	6.41	8.22	7.01
<b>Dyer, Tonette (USA)</b> (1982) (time)		11.98		23.94	30.36	37.24	44.76	53.70	53.70	6 / 8							
reaction time				11.96	6.42	6.88	7.52	8.94		# of strides	11.98	11.96	13.30	16.46	23.94	29.76	5.82
velocity		8.35		8.36	7.79	7.27	6.65	5.59	7.45		196.0	8.35	8.36	7.52	6.08	8.35	6.72

## Semi-Final 1

date 15-Jul-04

USATF Women's Sprint Development (2004)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Trotter, De'Hashia (Dee Dee)</b> (time)		12.88		24.71	30.83	37.29	43.68	50.53	50.53	3 / 1							
reaction time				11.83	6.12	6.46	6.39	6.85		# of strides	12.88	11.83	12.58	13.24	24.71	25.82	1.11
velocity		7.76		8.45	8.17	7.74	7.82	7.30	7.92		188.0	7.76	8.45	7.95	7.55	8.09	7.75
<b>Henderson, Monique (USA)</b> (time)		12.28		23.89	30.06	36.40	43.14	50.53	50.53	4 / 2							
reaction time				11.61	6.17	6.34	6.74	7.39	<b>PB</b>	# of strides	12.28	11.61	12.51	14.13	23.89	26.64	2.75
velocity		8.14		8.61	8.10	7.89	7.42	6.77	7.92		190.2	8.14	8.61	7.99	7.08	8.37	7.51
<b>Hennagan, Monique (USA)</b> (time)		12.16		23.92	30.01	36.45	43.16	50.59	50.59	6 / 3							
reaction time				11.76	6.09	6.44	6.71	7.43		# of strides	12.16	11.76	12.53	14.14	23.92	26.67	2.75
velocity		8.22		8.50	8.21	7.76	7.45	6.73	7.91		188.2	8.22	8.50	7.98	7.07	8.36	7.50
<b>Cox, Crystal (USA)</b> (1979) (time)		12.38		23.92	30.01	36.49	43.46	51.23	51.23	5 / 4							
reaction time				11.54	6.09	6.48	6.97	7.77	<b>PB</b>	# of strides	12.38	11.54	12.57	14.74	23.92	27.31	3.39
velocity		8.08		8.67	8.21	7.72	7.17	6.44	7.81		190.7	8.08	8.67	7.96	6.78	8.36	7.32
<b>Chapple, Jerrika (USA)</b> (1984) (time)		12.73		24.81	31.13	37.84	44.60	52.08	52.08	1 / 5							
reaction time				12.08	6.32	6.71	6.76	7.48		# of strides	12.73	12.08	13.03	14.24	24.81	27.27	2.46

velocity	7.86	8.28	7.91	7.45	7.40	6.68	7.68			7.86	8.28	7.67	7.02	8.06	7.33	
<b>Barber, MeLisa (USA) (1980)</b> time	12.62	24.72	30.88	37.57	44.60	52.10	52.10	2 / 6								
reaction time interval		12.10	6.16	6.69	7.03	7.50		# of strides	12.62	12.10	12.85	14.53	24.72	27.38	2.66	
velocity	7.92	8.26	8.12	7.47	7.11	6.67	7.68		7.92	8.26	7.78	6.88	8.09	7.30		
<b>Perkins, Angel (USA) (1984)</b> time	12.11	23.97	30.45	37.30	44.66	52.84	52.84	7 / 7								
reaction time interval		11.86	6.48	6.85	7.36	8.18		# of strides	12.11	11.86	13.33	15.54	23.97	28.87	4.90	
velocity	8.26	8.43	7.72	7.30	6.79	6.11	7.57		8.26	8.43	7.50	6.44	8.34	6.93		
<b>Danner, Mary (USA) (1980)</b> time	12.36	24.11	30.58	37.30	44.65	52.85	52.85	8 / 8								
reaction time interval		11.75	6.47	6.72	7.35	8.20		# of strides	12.36	11.75	13.19	15.55	24.11	28.74	4.63	
velocity	8.09	8.51	7.73	7.44	6.80	6.10	7.57		8.09	8.51	7.58	6.43	8.30	6.96		

**Heat 4** date 12-Jul-04 USATF Women's Sprint Development (2004)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Hennagan, Monique (USA)</b> time	12.06	23.62	36.18	42.89	50.31	50.31	5 / 1										
reaction time interval		11.56	12.56	6.71	7.42		# of strides	12.06	11.56	12.56	14.13	23.62	26.69	3.07			
velocity	8.29	8.65	7.96	7.45	6.74	7.95		8.29	8.65	7.96	7.08	8.47	7.49				
<b>Henderson, Monique (USA)</b> time	11.92	23.69	36.58	43.34	51.06	51.06	3 / 2										
reaction time interval		11.77	12.89	6.76	7.72		# of strides	11.92	11.77	12.89	14.48	23.69	27.37	3.68			
velocity	8.39	8.50	7.76	7.40	6.48	7.83		8.39	8.50	7.76	6.91	8.44	7.31				
<b>Perkins, Angel (USA) (1984)</b> time	12.01	23.96	37.22	44.24	52.46	52.46	4 / 3										
reaction time interval		11.95	13.26	7.02	8.22		# of strides	12.01	11.95	13.26	15.24	23.96	28.50	4.54			
velocity	8.33	8.37	7.54	7.12	6.08	7.62		8.33	8.37	7.54	6.56	8.35	7.02				
<b>Davis, Kia (USA) (1976)</b> time	12.13	23.99	37.18	44.29	52.51	52.51	6 / 4										
reaction time interval		11.86	13.19	7.11	8.22		# of strides	12.13	11.86	13.19	15.33	23.99	28.52	4.53			
velocity	8.24	8.43	7.58	7.03	6.08	7.62		8.24	8.43	7.58	6.52	8.34	7.01				
<b>Reed, Cassandra (USA) (198)</b> time	12.42	24.59	37.92	44.92	53.14	53.14	7 / 5										
reaction time interval		12.17	13.33	7.00	8.22		# of strides	12.42	12.17	13.33	15.22	24.59	28.55	3.96			
velocity	8.05	8.22	7.50	7.14	6.08	7.53		8.05	8.22	7.50	6.57	8.13	7.01				
<b>Sibley, Licretia (USA) (1983)</b> time	12.69	24.60	37.92	44.96	53.24	53.24	8 / 6										
reaction time interval		11.91	13.32	7.04	8.28		# of strides	12.69	11.91	13.32	15.32	24.60	28.64	4.04			
velocity	7.88	8.40	7.51	7.10	6.04	7.51		7.88	8.40	7.51	6.53	8.13	6.98				

**Heat 3** date 12-Jul-04 USATF Women's Sprint Development (2004)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Washington, Demetria (USA)</b> time	12.08	23.79	37.07	44.24	52.13	52.13	7 / 1										
reaction time interval		11.71	13.28	7.17	7.89		# of strides	12.08	11.71	13.28	15.06	23.79	28.34	4.55			
velocity	8.28	8.54	7.53	6.97	6.34	7.67		8.28	8.54	7.53	6.64	8.41	7.06				
<b>Dyer, Tonette (USA) (1982)</b> time	11.92	23.17	36.30	43.86	52.14	52.14	3 / 2										
reaction time interval		11.25	13.13	7.56	8.28		# of strides	11.92	11.25	13.13	15.84	23.17	28.97	5.80			
velocity	8.39	8.89	7.62	6.61	6.04	7.67		8.39	8.89	7.62	6.31	8.63	6.90				
<b>Greggs, Charlette (USA) (19)</b> time	12.48	24.26	38.00	46.96	53.71	53.71	5 / 5										
reaction time interval		11.78	13.74	8.96	6.75		# of strides	12.48	11.78	13.74	15.71	24.26	29.45	5.19			
velocity	8.01	8.49	7.28	5.58	7.41	7.45		186.0	8.01	8.49	7.28	6.37	8.24	6.79			

**Heat 2** date 12-Jul-04 USATF Women's Sprint Development (2004)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Richards, Sanya (USA) (1985)</b> time	11.98	23.66	36.43	42.92	50.22	50.22	6 / 1										
reaction time interval		11.68	12.77	6.49	7.30		# of strides	11.98	11.68	12.77	13.79	23.66	26.56	2.90			
velocity	8.35	8.56	7.83	7.70	6.85	7.96		8.35	8.56	7.83	7.25	8.45	7.53				
<b>Reid, Suziann (USA) (1977)</b> time	12.18	24.12	37.09	43.61	51.03	51.03	8 / 2										
reaction time interval		11.94	12.97	6.52	7.42		# of strides	12.18	11.94	12.97	13.94	24.12	26.91	2.79			
velocity	8.21	8.38	7.71	7.67	6.74	7.84		197.0	8.21	8.38	7.71	7.17	8.29	7.43			
<b>Danner, Mary (USA) (1980)</b> time	12.19	23.92	37.15	44.06	51.88	51.88	5 / 3										
reaction time interval		11.73	13.23	6.91	7.82		# of strides	12.19	11.73	13.23	14.73	23.92	27.96	4.04			
velocity	8.20	8.53	7.56	7.24	6.39	7.71		181.2	8.20	8.53	7.56	6.79	8.36	7.15			
<b>Chapple, Jerrika (USA) (1984)</b> time	12.46	24.35	37.33	44.10	52.16	52.16	7 / 4										
reaction time interval		11.89	12.98	6.77	8.06		# of strides	12.46	11.89	12.98	14.83	24.35	27.81	3.46			
velocity	8.03	8.41	7.70	7.39	6.20	7.67		195.0	8.03	8.41	7.70	6.74	8.21	7.19			
<b>Barber, MeLisa (USA) (1980)</b> time	11.82	23.42	36.68	43.87	52.30	52.30	4 / 5										
reaction time interval		11.60	13.26	7.19	8.43		# of strides	11.82	11.60	13.26	15.62	23.42	28.88	5.46			
velocity	8.46	8.62	7.54	6.95	5.93	7.65		207.0	8.46	8.62	7.54	6.40	8.54	6.93			

**Heat 1** date 12-Jul-04 USATF Women's Sprint Development (2004)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Trotter, De'Hashia (Dee Dee)</b> time	12.51	24.10	36.80	43.44	50.52	50.52	4 / 1										
reaction time interval		11.59	12.70	6.64	7.08		# of strides	12.51	11.59	12.70	13.72	24.10	26.42	2.32			
velocity	7.99	8.63	7.87	7.53	7.06	7.92		7.99	8.63	7.87	7.29	8.30	7.57				
<b>Cox, Crystal (USA) (1979)</b> time	12.61	24.22	37.12	43.99	51.44	51.44	7 / 2										
reaction time interval		11.61	12.90	6.87	7.45	<b>PB</b>	# of strides	12.61	11.61	12.90	14.32	24.22	27.22	3.00			
velocity	7.93	8.61	7.75	7.28	6.71	7.78		7.93	8.61	7.75	6.98	8.26	7.35				
<b>Dunn, Debbie (USA) (1978)</b> time	12.43	24.06	36.85	43.88	51.67	51.67	5 / 3										
reaction time interval		11.63	12.79	7.03	7.79		# of strides	12.43	11.63	12.79	14.82	24.06	27.61	3.55			

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

	velocity	8.05	8.60	7.82	7.11	6.42	7.74		8.05	8.60	7.82	6.75	8.31	7.24	
<b>Robinson, Moushami (USA)</b>	time	12.43	24.14	36.88	44.11	52.14	52.14	3 / 4							
	reaction time		11.71	12.74	7.23	8.03		# of strides	12.43	11.71	12.74	15.26	24.14	28.00	3.86
	velocity	8.05	8.54	7.85	6.92	6.23	7.67		8.05	8.54	7.85	6.55	8.29	7.14	
<b>Hall, Monique (USA) (1980)</b>	time	12.35	23.99	37.08	44.29	52.71	52.71	6 / 5							
	reaction time		11.64	13.09	7.21	8.42		# of strides	12.35	11.64	13.09	15.63	23.99	28.72	4.73
	velocity	8.10	8.59	7.64	6.93	5.94	7.59		8.10	8.59	7.64	6.40	8.34	6.96	
<b>Fox, Jessica (USA) (1982)</b>	time	12.86	24.59	37.64	44.93	53.11	53.11	8 / 6							
	reaction time		11.73	13.05	7.29	8.18		# of strides	12.86	11.73	13.05	15.47	24.59	28.52	3.93
	velocity	7.78	8.53	7.66	6.86	6.11	7.53		7.78	8.53	7.66	6.46	8.13	7.01	

**2003 IAAF World Championships (Paris, FRA)**

*Smith (2005) - high performance sprinting*

**FINAL** date 27-Aug-03

*Bonvin (2003) - Compte-rendu 400m et relais 4x 400m*

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
<b>Guevara, Ana (MEX) (1977)</b>	time		12.0		23.2		35.7		48.9	48.89	3 / 1								<i>Smith (2005)</i>
	reaction time	0.242			11.2		12.5		13.2	<b>AR</b>	# of strides	12.00	11.20	12.50	13.19	23.20	25.69		2.49
	velocity		8.33		8.93		8.00		7.58	8.18		8.33	8.93	8.00	7.58	8.62	7.79		
<b>Fenton, Lorraine (JAM) (197)</b>	time				23.6		35.7		49.43	49.43	5 / 2								<i>Bonvin (2003)</i>
	reaction time	0.177			12.1		12.1		13.7		# of strides		12.10	13.73	23.60	25.83			2.23
	velocity				8.47		8.26		7.28	8.09			8.26	7.28	8.47	7.74			
<b>Thiam, Amy Mbacké (SEN) (</b>	time				23.1		35.7		49.95	49.95	6 / 3								<i>Bonvin (2003)</i>
	reaction time	0.175			12.6		14.3				# of strides			12.60	14.25	23.10	26.85		3.75
	velocity				8.66		7.94		7.02	8.01				7.94	7.02	8.66	7.45		
<b>Nazarova, Natalya (RUS) (19</b>	time				23.6		36.0		49.98	49.98	7 / 4								<i>Bonvin (2003)</i>
	reaction time	0.170			12.4		14.0				# of strides		12.40	13.98	23.60	26.38			2.78
	velocity				8.47		8.06		7.15	8.00			8.06	7.15	8.47	7.58			
<b>Williams-Darling, Tonique (E</b>	time				23.5		36.2		50.38	50.38	4 / 5								<i>Bonvin (2003)</i>
	reaction time	0.151			12.7		14.2				# of strides		12.70	14.18	23.50	26.88			3.38
	velocity				8.51		7.87		7.05	7.94			7.87	7.05	8.51	7.44			
<b>Zykina, Olesya (RUS) (1980)</b>	time				23.9		36.3		50.59	50.59	8 / 6								<i>Bonvin (2003)</i>
	reaction time	0.107			12.4		14.3				# of strides		12.40	14.29	23.90	26.69			2.79
	velocity				8.37		8.06		7.00	7.91			8.06	7.00	8.37	7.49			
<b>McConnell, Lee (GBR) (1978)</b>	time				23.3		36.5		51.07	51.07	1 / 7								<i>Bonvin (2003)</i>
	reaction time	0.205			13.2		14.6				# of strides			13.20	14.57	23.30	27.77		4.47
	velocity				8.58		7.58		6.86	7.83				7.58	6.86	8.58	7.20		
<b>Pospelova, Svetlana (RUS) (</b>	time				23.7		36.7		51.30	51.30	2 / 8								<i>Bonvin (2003)</i>
	reaction time	0.145			13.0		14.6				# of strides			13.00	14.60	23.70	27.60		3.90
	velocity				8.44		7.69		6.85	7.80				7.69	6.85	8.44	7.25		

**2003 USATF National Junior Championships (Palo Alto, CA)**

*USATF Women's Sprint Development (2003)*

**FINAL** date 22-Jun-03

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
<b>Smith, Stephanie (USA) (198</b>	time				24.07		37.25	44.26	52.04	52.04	7 / 1								
	reaction time				13.18		7.01	7.78		<b>PB</b>	# of strides			13.18	14.79	24.07	27.97		3.90
	velocity				8.31		7.59	7.13	6.43	7.69				7.59	6.76	8.31	7.15		
<b>Perkins, Angel (USA) (1984)</b>	time				24.42		37.67	44.70	52.06	52.06	6 / 2								
	reaction time				13.25		7.03	7.36		<b>PB</b>	# of strides			13.25	14.39	24.42	27.64		3.22
	velocity				8.19		7.55	7.11	6.79	7.68				7.55	6.95	8.19	7.24		
<b>Hastings, Natasha (USA) (19</b>	time				24.89		38.06	44.78	52.09	52.09	4 / 3								
	reaction time				13.17		6.72	7.31		<b>PB</b>	# of strides			13.17	14.03	24.89	27.20		2.31
	velocity				8.04		7.59	7.44	6.84	7.68				7.59	7.13	8.04	7.35		
<b>Lee, Jasmine (USA) (1986)</b>	time				25.01		38.46	45.16	52.52	52.52	8 / 4								
	reaction time				13.45		6.70	7.36		<b>PB</b>	# of strides			13.45	14.06	25.01	27.51		2.50
	velocity				8.00		7.43	7.46	6.79	7.62				7.43	7.11	8.00	7.27		
<b>Lawrence, Deonna (USA) (19</b>	time				24.89		38.14	45.23	52.77	52.77	3 / 5								
	reaction time				13.25		7.09	7.54		<b>PB</b>	# of strides			13.25	14.63	24.89	27.88		2.99
	velocity				8.04		7.55	7.05	6.63	7.58				7.55	6.84	8.04	7.17		
<b>Cox, Shana (USA) (1985)</b>	time				23.84		37.47	44.86	53.47	53.47	5 / 6								
	reaction time				13.63		7.39	8.61			# of strides			13.63	16.00	23.84	29.63		5.79
	velocity				8.39		7.34	6.77	5.81	7.48				7.34	6.25	8.39	6.75		
<b>Austin, Lauren (USA) (1986)</b>	time				25.00		38.64	45.86	53.61	53.61	2 / 7								
	reaction time				13.64		7.22	7.75			# of strides			13.64	14.97	25.00	28.61		3.61
	velocity				8.00		7.33	6.93	6.45	7.46				7.33	6.68	8.00	6.99		
<b>Hardeman, Christina (USA) (</b>	time				25.11		38.64	45.75	53.76	53.76	9 / 8								
	reaction time				13.53		7.11	8.01		<b>PB</b>	# of strides			13.53	15.12	25.11	28.65		3.54
	velocity				7.96		7.39	7.03	6.24	7.44				7.39	6.61	7.96	6.98		
<b>Williams, Alycia (USA) (1985)</b>	time				25.18		39.07	46.53	54.73	54.73	1 / 9								
	reaction time				13.89		7.46	8.20			# of strides			13.89	15.66	25.18	29.55		4.37
	velocity				7.94		7.20	6.70	6.10	7.31				7.20	6.39	7.94	6.77		

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation



## 2003 USATF National Championship (Palo Alto, CA)

## FINAL

date 21-Jun-03

USATF Women's Sprint Development (2003)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Richards, Sanya (USA) (1985)</b> time				23.79		36.96	43.63	51.01	51.01	4 / 1							
reaction time						13.17	6.67	7.38		# of strides			13.17	14.05	23.79	27.22	3.43
velocity				8.41		7.59	7.50	6.78	7.84				7.59	7.12	8.41	7.35	
<b>Washington, Demetria (USA)</b> time				24.12		37.25	44.11	51.54	51.54	5 / 2							
reaction time						13.13	6.86	7.43		# of strides			13.13	14.29	24.12	27.42	3.30
velocity				8.29		7.62	7.29	6.73	7.76				7.62	7.00	8.29	7.29	
<b>Trotter, De'Hashia (Dee Dee)</b> time				24.39		37.37	44.31	51.78	51.78	2 / 3							
reaction time						12.98	6.94	7.47		# of strides			12.98	14.41	24.39	27.39	3.00
velocity				8.20		7.70	7.20	6.69	7.72				7.70	6.94	8.20	7.30	
<b>Robinson, Moushaumi (USA)</b> time				25.01		38.04	44.66	51.93	51.93	7 / 4							
reaction time						13.03	6.62	7.27		# of strides			13.03	13.89	25.01	26.92	1.91
velocity				8.00		7.67	7.55	6.88	7.70				7.67	7.20	8.00	7.43	
<b>Barber, Me'Lisa (USA) (1980)</b> time				25.34		38.10	44.07	52.04	52.04	6 / 5							
reaction time						12.76	5.97	7.97		# of strides			12.76	13.94	25.34	26.70	1.36
velocity				7.89		7.84	8.38	6.27	7.69				7.84	7.17	7.89	7.49	
<b>Cox, Crystal (USA) (1979)</b> time				23.99		37.12	44.18	52.07	52.07	3 / 6							
reaction time						13.13	7.06	7.89		# of strides			13.13	14.95	23.99	28.08	4.09
velocity				8.34		7.62	7.08	6.34	7.68				7.62	6.69	8.34	7.12	
<b>Clay, Julian (USA) (1977)</b> time						38.41	45.11	52.47	52.47	9 / 7							
reaction time							6.70	7.36		# of strides				14.06			
velocity						7.81	7.46	6.79	7.62					7.11			
<b>Fox, Jessica (USA) (1982)</b> time				25.36		38.36	45.11	52.58	52.58	8 / 8							
reaction time						13.00	6.75	7.47		# of strides			13.00	14.22	25.36	27.22	1.86
velocity				7.89		7.69	7.41	6.69	7.61				7.69	7.03	7.89	7.35	

## Semi-Final 2

date 20-Jun-03

USATF Women's Sprint Development (2003)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Richards, Sanya (USA) (1985)</b> time				23.96		37.17	44.01	51.74	51.74	7 / 1							
reaction time						13.21	6.84	7.73		# of strides			13.21	14.57	23.96	27.78	3.82
velocity				8.35		7.57	7.31	6.47	7.73				7.57	6.86	8.35	7.20	
<b>Robinson, Moushaumi (USA)</b> time				24.19		37.75	44.61	52.35	52.35	4 / 2							
reaction time						13.56	6.86	7.74		# of strides			13.56	14.60	24.19	28.16	3.97
velocity				8.27		7.37	7.29	6.46	7.64				7.37	6.85	8.27	7.10	
<b>Trotter, De'Hashia (Dee Dee)</b> time				24.63		37.99	44.76	52.57	52.57	5 / 3							
reaction time						13.36	6.77	7.81		# of strides			13.36	14.58	24.63	27.94	3.31
velocity				8.12		7.49	7.39	6.40	7.61				7.49	6.86	8.12	7.16	
<b>Clay, Julian (USA) (1977)</b> time				24.12		37.67	44.71	52.88	52.88	6 / 4							
reaction time						13.55	7.04	8.17		# of strides			13.55	15.21	24.12	28.76	4.64
velocity				8.29		7.38	7.10	6.12	7.56				7.38	6.57	8.29	6.95	
<b>Hennagan, Monique (USA)</b> time				24.07		37.62	44.86	53.22	53.22	8 / 5							
reaction time						13.55	7.24	8.36		# of strides			13.55	15.60	24.07	29.15	5.08
velocity				8.31		7.38	6.91	5.98	7.52				7.38	6.41	8.31	6.86	
<b>Dunn, Debbie (USA) (1978)</b> time						37.97	46.25	53.46	53.46	2 / 6							
reaction time							8.28	7.21		# of strides				15.49			
velocity						7.90	6.04	6.93	7.48					6.46			
<b>Trent, Tia (USA) (1979)</b> time				24.64		38.37	45.89	54.24	54.24	9 / 7							
reaction time						13.73	7.52	8.35		# of strides			13.73	15.87	24.64	29.60	4.96
velocity				8.12		7.28	6.65	5.99	7.37				7.28	6.30	8.12	6.76	
<b>Henderson, Monique (USA)</b> time						38.77	46.05	54.43	54.43	3 / 8							
reaction time							7.28	8.38		# of strides				15.66			
velocity						7.74	6.87	5.97	7.35					6.39			

## Semi-Final 1

date 20-Jun-03

USATF Women's Sprint Development (2003)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Washington, Demetria (USA)</b> time				24.54		37.56	44.39	51.91	51.91	5 / 1							
reaction time						13.02	6.83	7.52		# of strides			13.02	14.35	24.54	27.37	2.83
velocity				8.15		7.68	7.32	6.65	7.71				7.68	6.97	8.15	7.31	
<b>Barber, Me'Lisa (USA) (1980)</b> time				24.84		37.82	44.83	52.53	52.53	4 / 2							
reaction time						12.98	7.01	7.70		# of strides			12.98	14.71	24.84	27.69	2.85
velocity				8.05		7.70	7.13	6.49	7.61				7.70	6.80	8.05	7.22	
<b>Cox, Crystal (USA) (1979)</b> time				24.01		37.27	44.44	52.57	52.57	7 / 3							
reaction time						13.26	7.17	8.13		# of strides			13.26	15.30	24.01	28.56	4.55
velocity				8.33		7.54	6.97	6.15	7.61				7.54	6.54	8.33	7.00	
<b>Fox, Jessica (USA) (1982)</b> time				24.81		38.04	44.93	52.60	52.60	6 / 4							
reaction time						13.23	6.89	7.67		# of strides			13.23	14.56	24.81	27.79	2.98
velocity				8.06		7.56	7.26	6.52	7.60				7.56	6.87	8.06	7.20	
<b>Greggs, Charlette (USA) (191)</b> time				24.21		38.16	45.56	53.77	53.77	8 / 5							

reaction time	interval		13.95	7.40	8.21		# of strides		13.95	15.61	24.21	29.56	5.35
	velocity	8.26	7.17	6.76	6.09	7.44			7.17	6.41	8.26	6.77	
<b>Barnes, Tiffany (USA) (1981)</b>	time	24.73	38.49	45.80	53.83	53.83	9 / 6						
reaction time	interval		13.76	7.31	8.03		# of strides		13.76	15.34	24.73	29.10	4.37
	velocity	8.09	7.27	6.84	6.23	7.43			7.27	6.52	8.09	6.87	
<b>Doe, Carielle (USA) (1980)</b>	time	24.56	38.46	45.93	54.09	54.09	3 / 7						
reaction time	interval		13.90	7.47	8.16		# of strides		13.90	15.63	24.56	29.53	4.97
	velocity	8.14	7.19	6.69	6.13	7.40			7.19	6.40	8.14	6.77	
<b>Barber, Mikele (USA) (1980)</b>	time	24.63	38.12	45.73	54.23	54.23	2 / 8						
reaction time	interval		13.49	7.61	8.50		# of strides		13.49	16.11	24.63	29.60	4.97
	velocity	8.12	7.41	6.57	5.88	7.38			7.41	6.21	8.12	6.76	

## 2002 European Championships (Munich, GER)

## FINAL

date 08-Aug-02

Graubner (2009) - <http://www.fgs.uni-halle.de>

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Zykina, Olesya (RUS) (1980)</b>	time	12.20	23.84	36.62	50.45	50.45	50.45	50.45	50.45	50.45	/ 1							
reaction time	interval		0.131	11.64	12.78	13.83					# of strides	12.20	11.64	12.78	13.83	23.84	26.61	2.77
	velocity	8.20	8.59	7.82	7.23	7.93						8.20	8.59	7.82	7.23	8.39	7.52	
<b>Breuer, Grit (GER) (1972)</b>	time	12.49	24.22	36.96	50.70	50.70	50.70	50.70	50.70	50.70	/ 2							
reaction time	interval		0.161	11.73	12.74	13.74					# of strides	12.49	11.73	12.74	13.74	24.22	26.48	2.26
	velocity	8.01	8.53	7.85	7.28	7.89						8.01	8.53	7.85	7.28	8.26	7.55	
<b>McConnell, Lee (GBR) (1978)</b>	time	12.58	24.33	37.02	51.02	51.02	51.02	51.02	51.02	51.02	/ 3							
reaction time	interval		0.209	11.75	12.69	14.00	PB				# of strides	12.58	11.75	12.69	14.00	24.33	26.69	2.36
	velocity	7.95	8.51	7.88	7.14	7.84						7.95	8.51	7.88	7.14	8.22	7.49	
<b>Prokopek, Grazzyna (POL) (1978)</b>	time	12.61	24.54	37.33	51.53	51.53	51.53	51.53	51.53	51.53	/ 4							
reaction time	interval		0.171	11.93	12.79	14.20					# of strides	12.61	11.93	12.79	14.20	24.54	26.99	2.45
	velocity	7.93	8.38	7.82	7.04	7.76						7.93	8.38	7.82	7.04	8.15	7.41	
<b>Kapachinskaya, Anastasiya (1978)</b>	time	12.88	24.96	37.86	51.69	51.69	51.69	51.69	51.69	51.69	/ 5							
reaction time	interval		0.286	12.08	12.90	13.83					# of strides	12.88	12.08	12.90	13.83	24.96	26.73	1.77
	velocity	7.76	8.28	7.75	7.23	7.74						7.76	8.28	7.75	7.23	8.01	7.48	
<b>Yefremova, Antonina (UKR) (1978)</b>	time	13.00	24.97	37.75	52.02	52.02	52.02	52.02	52.02	52.02	/ 6							
reaction time	interval		0.162	11.97	12.78	14.27					# of strides	13.00	11.97	12.78	14.27	24.97	27.05	2.08
	velocity	7.69	8.35	7.82	7.01	7.69						7.69	8.35	7.82	7.01	8.01	7.39	
<b>Usovich, Sviatlana (BLR) (1978)</b>	time	12.91	24.96	38.19	52.10	52.10	52.10	52.10	52.10	52.10	/ 7							
reaction time	interval		0.164	12.05	13.23	13.91					# of strides	12.91	12.05	13.23	13.91	24.96	27.14	2.18
	velocity	7.75	8.30	7.56	7.19	7.68						7.75	8.30	7.56	7.19	8.01	7.37	
<b>Rockmeier, Birgit (GER) (1978)</b>	time	12.75	25.02	38.46	52.91	52.91	52.91	52.91	52.91	52.91	/ 8							
reaction time	interval		0.127	12.27	13.44	14.45					# of strides	12.75	12.27	13.44	14.45	25.02	27.89	2.87
	velocity	7.84	8.15	7.44	6.92	7.56						7.84	8.15	7.44	6.92	7.99	7.17	

## Heat 3

date 07-Aug-02

Graubner (2009) - <http://www.fgs.uni-halle.de>

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Breuer, Grit (GER) (1972)</b>	time	12.38	23.90	37.01	50.98	50.98	50.98	50.98	50.98	50.98	/ 1							
reaction time	interval		0.150	11.52	13.11	13.97					# of strides	12.38	11.52	13.11	13.97	23.90	27.08	3.18
	velocity	8.08	8.68	7.63	7.16	7.85						8.08	8.68	7.63	7.16	8.37	7.39	
<b>McConnell, Lee (GBR) (1978)</b>	time	12.66	24.52	37.37	51.24	51.24	51.24	51.24	51.24	51.24	/ 2							
reaction time	interval		0.218	11.86	12.85	13.87					# of strides	12.66	11.86	12.85	13.87	24.52	26.72	2.20
	velocity	7.90	8.43	7.78	7.21	7.81						7.90	8.43	7.78	7.21	8.16	7.49	
<b>Kapachinskaya, Anastasiya (1978)</b>	time	12.88	24.69	37.46	51.56	51.56	51.56	51.56	51.56	51.56	/ 3							
reaction time	interval		0.209	11.81	12.77	14.10					# of strides	12.88	11.81	12.77	14.10	24.69	26.87	2.18
	velocity	7.76	8.47	7.83	7.09	7.76						7.76	8.47	7.83	7.09	8.10	7.44	

## Heat 2

date 07-Aug-02

Graubner (2009) - <http://www.fgs.uni-halle.de>

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Yefremova, Antonina (UKR) (1978)</b>	time	13.12	24.94	37.72	51.96	51.96	51.96	51.96	51.96	51.96	/ 1							
reaction time	interval		0.175	11.82	12.78	14.24					# of strides	13.12	11.82	12.78	14.24	24.94	27.02	2.08
	velocity	7.62	8.46	7.82	7.02	7.70						7.62	8.46	7.82	7.02	8.02	7.40	
<b>Prokopek, Grazzyna (POL) (1978)</b>	time	12.76	24.66	37.41	52.01	52.01	52.01	52.01	52.01	52.01	/ 2							
reaction time	interval		0.181	11.90	12.75	14.60					# of strides	12.76	11.90	12.75	14.60	24.66	27.35	2.69
	velocity	7.84	8.40	7.84	6.85	7.69						7.84	8.40	7.84	6.85	8.11	7.31	
<b>Marx, Claudia (GER) (1978)</b>	time	12.84	25.00	37.16	52.42	52.42	52.42	52.42	52.42	52.42	/ 3							
reaction time	interval		0.157	12.16	12.16	15.26					# of strides	12.84	12.16	12.16	15.26	25.00	27.42	2.42
	velocity	7.79	8.22	8.22	6.55	7.63						7.79	8.22	8.22	6.55	8.00	7.29	

## Heat 1

date 07-Aug-02

Graubner (2009) - <http://www.fgs.uni-halle.de>

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Zykina, Olesya (RUS) (1980)</b>	time	12.24	23.74	36.38	50.47	50.47	50.47	50.47	50.47	50.47	/ 1							
reaction time	interval		0.134	11.50	12.64	14.09					# of strides	12.24	11.50	12.64	14.09	23.74	26.73	2.99
	velocity	8.17	8.70	7.91	7.10	7.93						8.17	8.70	7.91	7.10	8.42	7.48	
<b>Rockmeier, Birgit (GER) (1978)</b>	time	12.72	25.00	37.95	52.28	52.28	52.28	52.28	52.28	52.28	/ 2							
reaction time	interval		0.137	12.28	12.95	14.33					# of strides	12.72	12.28	12.95	14.33	25.00	27.28	2.28
	velocity	7.86	8.14	7.72	6.98	7.65						7.86	8.14	7.72	6.98	8.00	7.33	

**2002 Herculis (Monaco, MON)****FINAL** date 19-Jul-02

Veny - split times from PJ

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential		
<b>Fenton, Lorraine (JAM) (197)</b> time		12.35		23.80		36.27		49.30	49.30	/ 2									
reaction time				0.218		interval		11.45	12.47	13.03	<b>NR</b>	# of strides	12.35	11.45	12.47	13.03	23.80	25.50	1.70
velocity		8.10		8.73		8.02		7.67	8.11		8.10	8.73	8.02	7.67	8.40	7.84			

**2001 Chinese National Games (Guangzhou, CHN)****Heat 2** date 21-Nov-01

Wang (2012) - Research on the analysis of the speed distribution of China's outstanding female 400-meter runners

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Xiao Hongfan (CHN) (1983)</b> time		12.50		24.70		38.27		52.96	52.94	/ 1							
reaction time				interval		12.20		13.57	14.69	# of strides	12.50	12.20	13.57	14.69	24.70	28.26	3.56
velocity		8.00		8.20		7.37		6.81	7.56		8.00	8.20	7.37	6.81	8.10	7.08	

**2001 ISTAF (Berlin, GER)****FINAL** date 31-Aug-01Graubner (2009) - <http://www.fgs.uni-halle.de>

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
<b>Breuer, Grit (GER) (1972)</b> time		12.45		24.28		37.22		50.78	50.78	/ 1								
reaction time				0.217		interval		11.83	12.94	13.56	# of strides	12.45	11.83	12.94	13.56	24.28	26.50	2.22
velocity		8.03		8.45		7.73		7.37	7.88		8.03	8.45	7.73	7.37	8.24	7.55		
<b>Marx, Claudia (GER) (1978)</b> time		12.59		24.62		37.79		52.26	52.26	/ 3								
reaction time				0.160		interval		12.03	13.17	14.47	# of strides	12.59	12.03	13.17	14.47	24.62	27.64	3.02
velocity		7.94		8.31		7.59		6.91	7.65		7.94	8.31	7.59	6.91	8.12	7.24		
<b>Rockmeier, Birgit (GER) (197)</b> time		12.31		24.53		37.69		53.04	53.04	/ 5								
reaction time				0.158		interval		12.22	13.16	15.35	# of strides	12.31	12.22	13.16	15.35	24.53	28.51	3.98
velocity		8.12		8.18		7.60		6.51	7.54		8.12	8.18	7.60	6.51	8.15	7.02		

**2001 IAAF World Championships (Edmonton, CAN)****FINAL** date 07-Aug-01

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Thiam, Amy Mbacke (SEN) (197)</b> time		0.175		no information available				<b>NR</b>	49.86	4 / 1							
<b>Fenton, Lorraine (JAM) (197)</b> time		0.170		no information available					49.88	7 / 2							
<b>Guevara, Ana (MEX) (1977)</b> time		0.187		no information available					49.97	3 / 3							
<b>Breuer, Grit (GER) (1972)</b> time		0.151		no information available					50.49	5 / 4							# of strides
<b>Nadjina, Kaltouma (CHA) (197)</b> time		0.193		no information available					50.80	6 / 5							191.7
<b>Zykina, Olesya (RUS) (1980)</b> time		0.144		no information available					50.93	2 / 6							
<b>Nguimgo, Mireille (CMR) (197)</b> time		0.157		no information available					51.97	1 / 7							
<b>Ogunkoya, Falilat (NGR) (197)</b> time		0.171		no information available					dnf	8 / --							

**2001 European Cup (Bremen, GER)****FINAL** date 23-Jun-01Graubner (2007) - <http://www.fgs.uni-halle.de>

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
<b>Breuer, Grit (GER) (1972)</b> time		12.33		24.18		37.02		50.49	50.49	/ 1								
reaction time				interval		11.85		12.84	13.47	# of strides	12.33	11.85	12.84	13.47	24.18	26.31	2.13	
velocity		8.11		8.44		7.79		7.42	7.92		8.11	8.44	7.79	7.42	8.27	7.60		
<b>Landre, Francine (FRA) (197)</b> time		12.42		24.52		37.48		51.21	51.21	/ 2								
reaction time				interval		12.10		12.96	13.73	<b>=PB</b>	# of strides	12.42	12.10	12.96	13.73	24.52	26.69	2.17
velocity		8.05		8.26		7.72		7.28	7.81		8.05	8.26	7.72	7.28	8.16	7.49		
<b>Antyukh, Natalya (RUS) (198)</b> time		12.76		24.72		37.36		51.37	51.37	/ 3								
reaction time				interval		11.96		12.64	14.01	# of strides	12.76	11.96	12.64	14.01	24.72	26.65	1.93	
velocity		7.84		8.36		7.91		7.14	7.79		7.84	8.36	7.91	7.14	8.09	7.50		
<b>Ruicu, Otilia (ROU) (1978)</b> time		12.67		24.98		37.79		51.65	51.65	/ 4								
reaction time				interval		12.31		12.81	13.86	<b>PB</b>	# of strides	12.67	12.31	12.81	13.86	24.98	26.67	1.69
velocity		7.89		8.12		7.81		7.22	7.74		7.89	8.12	7.81	7.22	8.01	7.50		
<b>Curbishley, Allison (GBR) (197)</b> time		12.73		24.74		37.84		51.99	51.99	/ 5								
reaction time				interval		12.01		13.10	14.15	# of strides	12.73	12.01	13.10	14.15	24.74	27.25	2.51	
velocity		7.86		8.33		7.63		7.07	7.69		7.86	8.33	7.63	7.07	8.08	7.34		
<b>Kozak, Anna (BLR) (1974)</b> time		12.49		24.04		36.66		52.08	52.08	/ 6								
reaction time				interval		11.55		12.62	15.42	# of strides	12.49	11.55	12.62	15.42	24.04	28.04	4.00	
velocity		8.01		8.66		7.92		6.49	7.68		8.01	8.66	7.92	6.49	8.32	7.13		
<b>Perpoli, Danielle (ITA) (1968)</b> time		12.73		25.12		38.34		52.13	52.13	/ 7								
reaction time				interval		12.39		13.22	13.79	<b>PB</b>	# of strides	12.73	12.39	13.22	13.79	25.12	27.01	1.89
velocity		7.86		8.07		7.56		7.25	7.67		7.86	8.07	7.56	7.25	7.96	7.40		
<b>Žížalová, Tereza (CZE) (1981)</b> time		13.28		25.84		39.42		54.06	54.06	/ 8								
reaction time				interval		12.56		13.58	14.64	<b>PB</b>	# of strides	13.28	12.56	13.58	14.64	25.84	28.22	2.38
velocity		7.53		7.96		7.36		6.83	7.40		7.53	7.96	7.36	6.83	7.74	7.09		

**2000 Olympic Games (Sydney, AUS)****FINAL** date 25-Sep-00

Butler (2016) - IAAF statistics handbook- special edition: Games of the XXXI Olympiad- Rio 2016

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
<b>Freeman, Cathy (AUS) (1973)</b> time		12.30		24.08		36.14		49.11	49.11	6 / 1								
reaction time				0.227		interval		11.78	12.97	# of strides	12.30	11.78	12.06	12.97	24.08	25.03	0.95	
velocity		8.13		8.49		8.29		7.71	8.14		8.13	8.49	8.29	7.71	8.31	7.99		
<b>Fenton, Lorraine (JAM) (197)</b> time		12.14		23.70		36.00		49.58	49.58	4 / 2								
reaction time				interval		11.56		12.30	13.58	<b>PB</b>	# of strides	12.14	11.56	12.30	13.58	23.70	25.88	2.18



velocity	8.24	8.65	8.13	7.36	8.07		8.24	8.65	8.13	7.36	8.44	7.73	
<b>Merry, Katharine (GBR) (197)</b> time	12.32	23.80	36.08	49.72	49.72	3 / 3							
reaction time	0.270	11.48	12.28	13.64	<b>PB</b>	# of strides	12.32	11.48	12.28	13.64	23.80	25.92	2.12
velocity	8.12	8.71	8.14	7.33	8.05		8.12	8.71	8.14	7.33	8.40	7.72	
<b>Fraser, Donna (GBR) (1972)</b> time	12.4	24.1	36.8	49.8	49.79	2 / 4							
reaction time	0.174	11.70	12.70	13.00	<b>PB</b>	# of strides	12.40	11.70	12.70	13.00	24.10	25.70	1.60
velocity	8.06	8.55	7.87	7.69	8.03		8.06	8.55	7.87	7.69	8.30	7.78	
<b>Guevara, Ana (MEX) (1977)</b> time	12.3	24.1	36.3	50.0	49.96	5 / 5							
reaction time	0.261	11.80	12.20	13.70		# of strides	12.30	11.80	12.20	13.70	24.10	25.90	1.80
velocity	8.13	8.47	8.20	7.30	8.01		8.13	8.47	8.20	7.30	8.30	7.72	
<b>Seyerling, Heide (RSA) (1976)</b> time	12.2	24.3	36.5	50.1	50.05	7 / 6							
reaction time	0.175	12.10	12.20	13.60	<b>NR / PB</b>	# of strides	12.20	12.10	12.20	13.60	24.30	25.80	1.50
velocity	8.20	8.26	8.20	7.35	7.99		8.20	8.26	8.20	7.35	8.23	7.75	
<b>Ogunkoya, Falilat (NGR) (19)</b> time	12.3	24.2	36.6	50.1	50.12	8 / 7							
reaction time	0.254	11.90	12.40	13.50		# of strides	12.30	11.90	12.40	13.50	24.20	25.90	1.70
velocity	8.13	8.40	8.06	7.41	7.98		8.13	8.40	8.06	7.41	8.26	7.72	
<b>Kotlyarova, Olga (RUS) (197)</b> time	12.3	24.0	37.7	51.0	51.04	1 / 8							
reaction time	0.188	11.70	13.70	13.30		# of strides	12.30	11.70	13.70	13.30	24.00	27.00	3.00
velocity	8.13	8.55	7.30	7.52	7.84		8.13	8.55	7.30	7.52	8.33	7.41	

## 2000 USA Olympic Trials (Sacramento, CA)

## FINAL

date 16-Jul-00

Hymans (2008) - history of the US olympic trials - track and field

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Colander-Richardson, LaTasha</b> time	12.3	23.7	35.9	49.87	49.87	7 / 1											
reaction time		11.4	12.2	14.0	<b>PB</b>	# of strides	12.30	11.40	12.20	13.97	23.70	26.17	2.47				
velocity	8.13	8.77	8.20	7.16	8.02		8.13	8.77	8.20	7.16	8.44	7.64					
<b>Miles-Clark, Jearl (USA) (196)</b> time	12.5	24.2	36.4	50.23	50.23	5 / 2											
reaction time		11.7	12.2	13.8		# of strides	12.50	11.70	12.20	13.83	24.20	26.03	1.83				
velocity	8.00	8.55	8.20	7.23	7.96		8.00	8.55	8.20	7.23	8.26	7.68					
<b>Collins, Michelle (USA) (197)</b> time	12.3	23.5	35.7	50.29	50.29	4 / 3											
reaction time		11.2	12.2	14.6		# of strides	12.30	11.20	12.20	14.59	23.50	26.79	3.29				
velocity	8.13	8.93	8.20	6.85	7.95		8.13	8.93	8.20	6.85	8.51	7.47					
<b>Hennagan, Monique (USA) (1)</b> time	12.5	24.0	36.6	50.82	50.82	3 / 4											
reaction time		11.5	12.6	14.2	<b>PB</b>	# of strides	12.50	11.50	12.60	14.22	24.00	26.82	2.82				
velocity	8.00	8.70	7.94	7.03	7.87		8.00	8.70	7.94	7.03	8.33	7.46					
<b>Barber, Mike (USA) (1980)</b> time	12.5	24.1	36.8	51.17	51.17	8 / 5											
reaction time		11.6	12.7	14.4		# of strides	12.50	11.60	12.70	14.37	24.10	27.07	2.97				
velocity	8.00	8.62	7.87	6.96	7.82		8.00	8.62	7.87	6.96	8.30	7.39					
<b>Anderson, Andrea (USA) (19)</b> time	12.2	23.4	36.0	51.32	51.32	1 / 6											
reaction time		11.2	12.6	15.3		# of strides	12.20	11.20	12.60	15.32	23.40	27.92	4.52				
velocity	8.20	8.93	7.94	6.53	7.79		8.20	8.93	7.94	6.53	8.55	7.16					
<b>Malone-Wallace, Maicel (USA)</b> time	12.5	24.0	36.6	51.39	51.39	6 / 7											
reaction time		11.5	12.6	14.8		# of strides	12.50	11.50	12.60	14.79	24.00	27.39	3.39				
velocity	8.00	8.70	7.94	6.76	7.78		8.00	8.70	7.94	6.76	8.33	7.30					
<b>Henderson, Monique (USA)</b> time	12.6	24.3	37.1	51.79	51.79	2 / 8											
reaction time		11.7	12.8	14.7		# of strides	12.60	11.70	12.80	14.69	24.30	27.49	3.19				
velocity	7.94	8.55	7.81	6.81	7.72		7.94	8.55	7.81	6.81	8.23	7.28					

## 1999 IAAF World Championships (Sevilla, ESP)

## FINAL

date 26-Aug-99

Ferro (2001) - biomechanical analysis of the 7th world championships, seville 1999

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Freeman, Cathy (AUS) (1973)</b> time	6.56	12.19	17.87	23.79	29.87	35.97	42.50	49.67	49.67	5 / 1							
reaction time	0.193	5.63	5.68	5.92	6.08	6.10	6.53	7.17		# of strides	12.19	11.60	12.18	13.70	23.79	25.88	2.09
velocity	7.62	8.88	8.80	8.45	8.22	8.20	7.66	6.97	8.05		8.20	8.62	8.21	7.30	8.41	7.73	
<b>Rücker, Anja (GER) (1972)</b> time	6.80	12.41	18.10	24.03	30.09	36.21	42.66	49.74	49.74	8 / 2							
reaction time	0.203	5.61	5.69	5.93	6.06	6.12	6.45	7.08	<b>PB</b>	# of strides	12.41	11.62	12.18	13.53	24.03	25.71	1.68
velocity	7.35	8.91	8.79	8.43	8.25	8.17	7.75	7.06	8.04		8.06	8.61	8.21	7.39	8.32	7.78	
<b>Graham, Lorraine (JAM) (19)</b> time	6.61	12.11	17.73	23.59	29.78	36.12	42.72	49.92	49.92	3 / 3							
reaction time	0.182	5.50	5.62	5.86	6.19	6.34	6.60	7.20	<b>PB</b>	# of strides	12.11	11.48	12.53	13.80	23.59	26.33	2.74
velocity	7.56	9.09	8.90	8.53	8.08	7.89	7.58	6.94	8.01		8.26	8.71	7.98	7.25	8.48	7.60	
<b>Ogunkoya, Falilat (NGR) (19)</b> time	6.55	12.14	17.82	23.66	29.79	35.95	42.63	50.03	50.03	4 / 4							
reaction time	0.157	5.59	5.68	5.84	6.13	6.16	6.68	7.40		# of strides	12.14	11.52	12.29	14.08	23.66	26.37	2.71
velocity	7.63	8.94	8.80	8.56	8.16	8.12	7.49	6.76	8.00		8.24	8.68	8.14	7.10	8.45	7.58	
<b>Merry, Katharine (GBR) (197)</b> time	6.68	12.24	17.95	23.91	30.04	36.37	43.12	50.52	50.52	1 / 5							
reaction time	0.193	5.56	5.71	5.96	6.13	6.33	6.75	7.40		# of strides	12.24	11.67	12.46	14.15	23.91	26.61	2.70
velocity	7.49	8.99	8.76	8.39	8.16	7.90	7.41	6.76	7.92		8.17	8.57	8.03	7.07	8.36	7.52	
<b>Nazarova, Natalya (RUS) (19)</b> time	6.70	12.29	18.04	24.09	30.47	36.91	43.53	50.61	50.61	2 / 6							
reaction time	0.176	5.59	5.75	6.05	6.38	6.44	6.62	7.08		# of strides	12.29	11.80	12.82	13.70	24.09	26.52	2.43
velocity	7.46	8.94	8.70	8.26	7.84	7.76	7.55	7.06	7.90		8.14	8.47	7.80	7.30	8.30	7.54	

<b>Breuer, Grit (GER) (1972)</b>	time	6.81	12.39	18.09	24.08	30.28	36.51	43.18	50.67	50.67	6 / 7							
	reaction time	0.176	interval	5.58	5.70	5.99	6.20	6.23	6.67	7.49	# of strides	12.39	11.69	12.43	14.16	24.08	26.59	2.51
	velocity	7.34	8.96	8.77	8.35	8.06	8.03	7.50	6.68	7.89		8.07	8.55	8.05	7.06	8.31	7.52	
<b>Kotlyarova, Olga (RUS) (1971)</b>	time	6.86	12.51	18.23	24.26	30.57	36.85	43.41	50.72	50.72	7 / 8							
	reaction time	0.185	interval	5.65	5.72	6.03	6.31	6.28	6.56	7.31	# of strides	12.51	11.75	12.59	13.87	24.26	26.46	2.20
	velocity	7.29	8.85	8.74	8.29	7.92	7.96	7.62	6.84	7.89		7.99	8.51	7.94	7.21	8.24	7.56	

## 1997 IAAF World Championships (Athens, GRE)

## FINAL

date 04-Aug-97

Ritzdorf (1997) - biomechanical research project at the VI th world championships in athletics, Athens 1997

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
<b>Freeman, Cathy (AUS) (1973)</b>	time	6.54	12.26	17.90	23.70	29.70	35.90	42.50	49.54	49.77	1 / 1								
	reaction time	0.226	interval	5.72	5.64	5.80	6.00	6.20	6.60	7.04	# of strides	12.26	11.44	12.20	13.64	23.70	25.84	2.14	
	velocity	7.65	8.74	8.87	8.62	8.33	8.06	7.58	7.10	8.04		8.16	8.74	8.20	7.33	8.44	7.74		
<b>Richards, Sandie (JAM) (196)</b>	time	6.50	12.06	17.82	23.70	29.78	36.02	42.62	49.62	49.79	5 / 2								
	reaction time	0.167	interval	5.56	5.76	5.88	6.08	6.24	6.60	7.00	PB	# of strides	12.06	11.64	12.32	13.60	23.70	25.92	2.22
	velocity	7.69	8.99	8.68	8.50	8.22	8.01	7.58	7.14	8.03		8.29	8.59	8.12	7.35	8.44	7.72		
<b>Miles-Clark, Jearl (USA) (196)</b>	time	6.67	12.23	17.79	23.75	29.83	36.07	42.67	49.75	49.90	4 / 3								
	reaction time	0.143	interval	5.56	5.56	5.96	6.08	6.24	6.60	7.08	# of strides	12.23	11.52	12.32	13.68	23.75	26.00	2.25	
	velocity	7.50	8.99	8.99	8.39	8.22	8.01	7.58	7.06	8.02		8.18	8.68	8.12	7.31	8.42	7.69		
<b>Breuer, Grit (GER) (1972)</b>	time	6.44	11.92	17.16	23.52	29.72	36.12	42.76	49.92	50.06	6 / 4								
	reaction time	0.143	interval	5.48	5.24	6.36	6.20	6.40	6.64	7.16	# of strides	11.92	11.60	12.60	13.80	23.52	26.40	2.88	
	velocity	7.76	9.12	9.54	7.86	8.06	7.81	7.53	6.98	7.99		8.39	8.62	7.94	7.25	8.50	7.58		
<b>Ogunkoya, Falilat (NGR) (19)</b>	time	6.58	12.30	17.94	23.70	29.78	35.98	42.74	50.14	50.27	3 / 5								
	reaction time	0.126	interval	5.72	5.64	5.76	6.08	6.20	6.76	7.40	# of strides	12.30	11.40	12.28	14.16	23.70	26.44	2.74	
	velocity	7.60	8.74	8.87	8.68	8.22	8.06	7.40	6.76	7.96		8.13	8.77	8.14	7.06	8.44	7.56		
<b>Fuchsová, Helena (CZE) (19)</b>	time	6.62	12.18	17.70	23.66	29.90	36.38	43.14	50.50	50.66	8 / 6								
	reaction time	0.159	interval	5.56	5.52	5.96	6.24	6.48	6.76	7.36	# of strides	12.18	11.48	12.72	14.12	23.66	26.84	3.18	
	velocity	7.55	8.99	9.06	8.39	8.01	7.72	7.40	6.79	7.90		8.21	8.71	7.86	7.08	8.45	7.45		
<b>Davis-Thompson, Pauline (B)</b>	time	6.58	12.30	18.18	24.18	30.38	36.79	43.39	50.55	50.68	7 / 7								
	reaction time	0.120	interval	5.72	5.88	6.00	6.20	6.41	6.60	7.16	# of strides	12.30	11.88	12.61	13.76	24.18	26.37	2.19	
	velocity	7.60	8.74	8.50	8.33	8.06	7.80	7.58	6.98	7.89		8.13	8.42	7.93	7.27	8.27	7.58		
<b>Alekseyeva, Tatyana (RUS) (19)</b>	time	6.48	12.24	17.64	23.48	29.72	36.28	43.24	51.20	51.37	2 / 8								
	reaction time	0.167	interval	5.76	5.40	5.84	6.24	6.56	6.96	7.96	# of strides	12.24	11.24	12.80	14.92	23.48	27.72	4.24	
	velocity	7.72	8.68	9.26	8.56	8.01	7.62	7.18	6.28	7.79		8.17	8.90	7.81	6.70	8.52	7.22		

## 1997 European Cup (Munich, GER)

## FINAL

date 21-Jun-97

Jung (2003) - <http://www.fgs.uni-halle.de>

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Breuer, Grit (GER) (1972)</b>	time	12.27			24.02		36.67		50.38	50.38	1 / 1							
	reaction time	interval			11.75		12.65		13.71		# of strides	12.27	11.75	12.65	13.71	24.02	26.36	2.34
	velocity	8.15			8.51		7.91		7.29	7.94		8.15	8.51	7.91	7.29	8.33	7.59	
<b>Fraser, Donna (GBR) (1972)</b>	time	12.70			24.57		37.09		51.51	51.51	1 / 2							
	reaction time	interval			11.87		12.52		14.42	PB	# of strides	12.70	11.87	12.52	14.42	24.57	26.94	2.37
	velocity	7.87			8.42		7.99		6.93	7.77		7.87	8.42	7.99	6.93	8.14	7.42	
<b>Kotlyarova, Olga (RUS) (1971)</b>	time	12.73			24.53		37.16		51.53	51.53	1 / 3							
	reaction time	interval			11.80		12.63		14.37		# of strides	12.73	11.80	12.63	14.37	24.53	27.00	2.47
	velocity	7.86			8.47		7.92		6.96	7.76		7.86	8.47	7.92	6.96	8.15	7.41	
<b>De Angeli, Virna (ITA) (1976)</b>	time	13.08			25.33		38.15		52.30	52.30	1 / 4							
	reaction time	interval			12.25		12.82		14.15		# of strides	13.08	12.25	12.82	14.15	25.33	26.97	1.64
	velocity	7.65			8.16		7.80		7.07	7.65		7.65	8.16	7.80	7.07	7.90	7.42	
<b>Movchan, Tatyana (UKR) (19)</b>	time	12.66			24.46		37.58		52.56	52.56	1 / 5							
	reaction time	interval			11.80		13.12		14.98		# of strides	12.66	11.80	13.12	14.98	24.46	28.10	3.64
	velocity	7.90			8.47		7.62		6.68	7.61		7.90	8.47	7.62	6.68	8.18	7.12	
<b>Bévis, Marie-Louise (FRA) (19)</b>	time	12.56			24.90		38.30		53.13	53.13	1 / 6							
	reaction time	interval			12.34		13.40		14.83		# of strides	12.56	12.34	13.40	14.83	24.90	28.23	3.33
	velocity	7.96			8.10		7.46		6.74	7.53		7.96	8.10	7.46	6.74	8.03	7.08	
<b>Kozak, Anna (BLR) (1974)</b>	time	12.71			24.68		37.94		53.50	53.50	1 / 7							
	reaction time	interval			11.97		13.26		15.56		# of strides	12.71	11.97	13.26	15.56	24.68	28.82	4.14
	velocity	7.87			8.35		7.54		6.43	7.48		7.87	8.35	7.54	6.43	8.10	6.94	
<b>Pirvu, Monica (ROU) (1973)</b>	time	13.18			25.93		39.60		54.87	54.87	1 / 8							
	reaction time	interval			12.75		13.67		15.27		# of strides	13.18	12.75	13.67	15.27	25.93	28.94	3.01
	velocity	7.59			7.84		7.32		6.55	7.29		7.59	7.84	7.32	6.55	7.71	6.91	

## 1996 Herculis (Monaco, MON)

## FINAL

date 10-Aug-96

Vazel (2018.07.20) - <https://twitter.com/pjvazel>

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Pérec, Marie-José (FRA) (19)</b>	time	12.0			23.3		35.7		49.2	49.18	1 / 1							
	reaction time	interval			11.30		12.40		13.48		# of strides	12.00	11.30	12.40	13.48	23.30	25.88	2.58
	velocity	8.33			8.85		8.06		7.42	8.13		8.33	8.85	8.06	7.42	8.58	7.73	

Butler (2016) - IAAF statistics handbook- special edition: Games of the XXXI Olympiad- Rio 2016

Vazel (2011) - speed reserve in the 400m

Urtebise (1996) - Atlanta 1996 : 400m

## 1996 Olympic Games (Atlanta, GA)

## FINAL

date 29-Jul-96

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Pérec, Marie-José (FRA) (1996)</b> time reaction time interval velocity		12.05		23.28 11.23		35.10 11.82		48.25 13.15	48.25 <b>OR / NR</b>	3 / 1 # of strides	12.05 8.30	11.23 8.90	11.82 8.46	13.15 7.60	23.28 8.59	24.97 8.01	1.69 Urtebise (1996)
<b>Freeman, Cathy (AUS) (1973)</b> time reaction time interval velocity		12.2		23.47 11.27		35.1 11.63		48.6 13.50	48.63 <b>AR</b>	4 / 2 # of strides	12.20 8.20	11.27 8.87	11.63 8.60	13.50 7.41	23.47 8.52	25.13 7.96	1.66 Vazel (2011)
<b>Ogunkoya, Falilat (NGR) (1991)</b> time reaction time interval velocity				23.54 8.50		35.5 8.36		49.10 13.60	49.10 <b>AR PB</b>	5 / 3 # of strides			11.96 8.36	13.60 7.35	23.54 8.50	25.56 7.82	2.02 Butler (2016)
<b>Davis-Thompson, Pauline (BVI) (1981)</b> time reaction time interval velocity				23.23 8.61		35.4 12.17		49.28 13.88	49.28 <b>PB</b>	2 / 4 # of strides			12.17 8.22	13.88 7.20	23.23 8.61	26.05 7.68	2.82 Butler (2016)
<b>Miles-Clark, Jearl (USA) (1966)</b> time reaction time interval velocity				23.97 8.34		36.1 8.24		49.55 13.45	49.55 <b>PB</b>	8 / 5 # of strides			12.13 8.24	13.45 7.43	23.97 8.34	25.58 7.82	1.61 Butler (2016)
<b>Yusuf-Olukoju, Fatima (NGR) (1979)</b> time reaction time interval velocity				23.30 8.58		35.7 8.06		49.77 14.07	49.77 <b>CR</b>	6 / 6 # of strides			12.40 8.06	14.07 7.11	23.30 8.58	26.47 7.56	3.17 Butler (2016)
<b>Richards, Sandie (JAM) (1966)</b> time reaction time interval velocity				23.64 8.46		36.1 12.46		50.45 14.35	50.45 <b>CR</b>	7 / 7 # of strides			12.46 8.03	14.35 6.97	23.64 8.46	26.81 7.46	3.17 Butler (2016)
<b>Breuer, Grit (GER) (1972)</b> time reaction time interval velocity				23.76 8.42		36.3 12.54		50.71 14.41	50.71 <b>CR</b>	1 / 8 # of strides			12.54 7.97	14.41 6.94	23.76 8.42	26.95 7.42	3.19 Butler (2016)

**Semi-Final 2** date 28-Jul-96

Butler (2016) - IAAF statistics handbook- special edition: Games of the XXXI Olympiad- Rio 2016

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Pérec, Marie-José (FRA) (1996)</b> time reaction time interval velocity				23.7 8.44				49.2 25.50	49.19 8.13	1 / 1 # of strides					23.70 8.44	25.50 7.84	1.80

**1996 USATF National Junior Championships (Deleware, OH)****FINAL** date 29-Jun-96

USATF Women's Sprint Development (1996)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Reid, Suziann (USA) (1977)</b> time reaction time interval velocity		12.16		24.05 11.89		37.45 13.40	44.77 7.32	52.46 7.69	52.46 7.62	5 / 1 # of strides	12.16 8.22	11.89 8.41	13.40 7.46	15.01 6.66	24.05 8.32	28.41 7.04	4.36
<b>Edmondson, Malika (USA) (1980)</b> time reaction time interval velocity		12.53		24.67 12.14		37.95 13.28	45.09 7.14	52.95 7.86	52.95 7.55	4 / 2 # of strides	12.53 7.98	12.14 8.24	13.28 7.53	15.00 6.67	24.67 8.11	28.28 7.07	3.61
<b>Rivers, Theodoesha (USA) (1981)</b> time reaction time interval velocity				25.18 7.94		38.44 7.54	45.59 6.99	53.39 6.41	53.39 7.49	7 / 3 # of strides			13.26 7.54	14.95 6.69	25.18 7.94	28.21 7.09	3.03
<b>Hanchak, Heather (USA) (1979)</b> time reaction time interval velocity		12.56		24.57 12.01		38.02 13.45	45.59 7.57	53.69 8.10	53.69 7.45	3 / 4 # of strides	12.56 7.96	12.01 8.33	13.45 7.43	15.67 6.38	24.57 8.14	29.12 6.87	4.55
<b>Patterson, Angel (USA) (1977)</b> time reaction time interval velocity		12.94		25.11 12.17		38.58 13.47	45.96 7.38	53.95 7.99	53.95 7.41	6 / 5 # of strides	12.94 7.73	12.17 8.22	13.47 7.42	15.37 6.51	25.11 7.96	28.84 6.93	3.73
<b>Grant, Sharkara (USA) (1978)</b> time reaction time interval velocity		12.93		25.05 12.12		38.55 13.50	46.14 7.59	54.33 8.19	54.33 7.36	2 / 6 # of strides	12.93 7.73	12.12 8.25	13.50 7.41	15.78 6.34	25.05 7.98	29.28 6.83	4.23
<b>Brock, Laila (USA) (1978)</b> time reaction time interval velocity				25.61 7.81		39.48 7.21	47.24 6.44	55.72 5.90	55.72 7.18	8 / 7 # of strides			13.87 7.21	16.24 6.16	25.61 7.81	30.11 6.64	4.50
<b>Estes, Carla (USA) (1979)</b> time reaction time interval velocity		12.48		24.84 12.36		38.95 14.11	46.95 8.00	56.63 9.68	56.63 7.06	1 / 8 # of strides	12.48 8.01	12.36 8.09	14.11 7.09	17.68 5.66	24.84 8.05	31.79 6.29	6.95

**1996 USA Olympic Trials (Atlanta, GA)****FINAL** date 19-Jun-96

USATF Women's Sprint Development (1996)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Malone, Maicel (USA) (1969)</b> time reaction time interval velocity		12.22		23.78 11.56		36.22 12.44	43.10 6.88	50.52 7.42	50.52 7.92	5 / 1 # of strides	12.22 8.18	11.56 8.65	12.44 8.04	14.30 6.99	23.78 8.41	26.74 7.48	2.96
<b>Miles-Clark, Jearl (USA) (1966)</b> time reaction time interval velocity		12.28		24.05 11.77		36.60 12.55	43.33 6.73	50.61 7.28	50.61 7.90	4 / 2 # of strides	12.28 8.14	11.77 8.50	12.55 7.97	14.01 7.14	24.05 8.32	26.56 7.53	2.51
<b>Graham, Kim (USA) (1971)</b> time reaction time interval		12.55		24.34 11.79		36.84 12.50	43.63 6.79	50.87 7.24	50.87 7.06	6 / 3 # of strides	12.55	11.79	12.50	14.03	24.34	26.53	2.19



velocity	7.97	8.48	8.00	7.36	6.91	7.86		7.97	8.48	8.00	7.13	8.22	7.54	
<b>Stevens, Rochelle (USA) (191</b>	12.20	23.99	36.75	43.64	51.16	51.16	1 / 4							
reaction time	interval	11.79	12.76	6.89	7.52		# of strides	12.20	11.79	12.76	14.41	23.99	27.17	3.18
velocity		8.20	8.48	7.84	7.26	6.65	7.82	8.20	8.48	7.84	6.94	8.34	7.36	
<b>Wilson, Linetta (USA) (1967)</b>	12.62	24.38	37.02	43.93	51.49	51.49	7 / 5							
reaction time	interval	11.76	12.64	6.91	7.56		# of strides	12.62	11.76	12.64	14.47	24.38	27.11	2.73
velocity		7.92	8.50	7.91	7.24	6.61	7.77	7.92	8.50	7.91	6.91	8.20	7.38	
<b>Kaiser-Brown, Natasha (USA)</b>	12.49	24.58	37.58	44.42	51.52	51.52	2 / 6							
reaction time	interval	12.09	13.00	6.84	7.10		# of strides	12.49	12.09	13.00	13.94	24.58	26.94	2.36
velocity		8.01	8.27	7.69	7.31	7.04	7.76	8.01	8.27	7.69	7.17	8.14	7.42	
<b>Green, Nicole (USA) (1971)</b>	12.59	24.56	37.28	44.30	51.95	51.95	8 / 7							
reaction time	interval	11.97	12.72	7.02	7.65		# of strides	12.59	11.97	12.72	14.67	24.56	27.39	2.83
velocity		7.94	8.35	7.86	7.12	6.54	7.70	7.94	8.35	7.86	6.82	8.14	7.30	
<b>Warren, Youlanda (USA) (19</b>	12.38	24.26	37.26	44.30	52.10	52.10	3 / 8							
reaction time	interval	11.88	13.00	7.04	7.80		# of strides	12.38	11.88	13.00	14.84	24.26	27.84	3.58
velocity		8.08	8.42	7.69	7.10	6.41	7.68	8.08	8.42	7.69	6.74	8.24	7.18	

**Semi-Final 2**

date	17-Jun-96	USATF Women's Sprint Development (1996)															
	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Malone, Maicel (USA) (1969)</b>	time	12.24	24.23	36.65	43.20	50.15	50.15	4 / 1									
reaction time	interval	11.99	12.42	6.55	6.95		# of strides	12.24	11.99	12.42	13.50	24.23	25.92	1.69			
velocity		8.17	8.34	8.05	7.63	7.19	7.98	8.17	8.34	8.05	7.41	8.25	7.72				
<b>Miles-Clark, Jearl (USA) (196</b>	12.64	24.43	36.96	43.46	50.45	50.45	3 / 2										
reaction time	interval	11.79	12.53	6.50	6.99		# of strides	12.64	11.79	12.53	13.49	24.43	26.02	1.59			
velocity		7.91	8.48	7.98	7.69	7.15	7.93	7.91	8.48	7.98	7.41	8.19	7.69				
<b>Stevens, Rochelle (USA) (191</b>	12.42	24.13	36.88	43.45	50.65	50.65	6 / 3										
reaction time	interval	11.71	12.75	6.57	7.20		# of strides	12.42	11.71	12.75	13.77	24.13	26.52	2.39			
velocity		8.05	8.54	7.84	7.61	6.94	7.90	8.05	8.54	7.84	7.26	8.29	7.54				
<b>Kaiser-Brown, Natasha (USA)</b>	12.43	24.43	37.30	44.05	51.18	51.18	7 / 4										
reaction time	interval	12.00	12.87	6.75	7.13		# of strides	12.43	12.00	12.87	13.88	24.43	26.75	2.32			
velocity		8.05	8.33	7.77	7.41	7.01	7.82	8.05	8.33	7.77	7.20	8.19	7.48				
<b>Collins, Michelle (USA) (1971</b>	12.68	24.70	37.35	44.28	52.03	52.03	8 / 5										
reaction time	interval	12.02	12.65	6.93	7.75		# of strides	12.68	12.02	12.65	14.68	24.70	27.33	2.63			
velocity		7.89	8.32	7.91	7.22	6.45	7.69	7.89	8.32	7.91	6.81	8.10	7.32				
<b>Brown, Toya (USA) (1975)</b>	12.26	24.13	37.16	44.38	52.27	52.27	2 / 6										
reaction time	interval	11.87	13.03	7.22	7.89		# of strides	12.26	11.87	13.03	15.11	24.13	28.14	4.01			
velocity		8.16	8.42	7.67	6.93	6.34	7.65	8.16	8.42	7.67	6.62	8.29	7.11				
<b>Howard, Donna (USA) (1974)</b>	12.36	24.34	37.85	44.98	52.37	52.37	1 / 7										
reaction time	interval	11.98	13.51	7.13	7.39		# of strides	12.36	11.98	13.51	14.52	24.34	28.03	3.69			
velocity		8.09	8.35	7.40	7.01	6.77	7.64	8.09	8.35	7.40	6.89	8.22	7.14				
<b>Hennagan, Monique (USA) (</b>	12.74	24.80	37.65	45.03	52.50	52.50	5 / 8										
reaction time	interval	12.06	12.85	7.38	7.47		# of strides	12.74	12.06	12.85	14.85	24.80	27.70	2.90			
velocity		7.85	8.29	7.78	6.78	6.69	7.62	7.85	8.29	7.78	6.73	8.06	7.22				

**Semi-Final 1**

date	17-Jun-96	USATF Women's Sprint Development (1996)															
	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Graham, Kim (USA) (1971)</b>	time	12.36	23.93	36.34	43.18	50.53	50.53	4 / 1									
reaction time	interval	11.57	12.41	6.84	7.35	<b>PB</b>	# of strides	12.36	11.57	12.41	14.19	23.93	26.60	2.67			
velocity		8.09	8.64	8.06	7.31	6.80	7.92	8.09	8.64	8.06	7.05	8.36	7.52				
<b>Warren, Youlanda (USA) (19</b>	12.08	23.70	36.44	43.44	50.90	50.90	1 / 2										
reaction time	interval	11.62	12.74	7.00	7.46	<b>PB</b>	# of strides	12.08	11.62	12.74	14.46	23.70	27.20	3.50			
velocity		8.28	8.61	7.85	7.14	6.70	7.86	8.28	8.61	7.85	6.92	8.44	7.35				
<b>Wilson, Linetta (USA) (1967)</b>	12.63	24.35	36.84	43.62	51.02	51.02	6 / 3										
reaction time	interval	11.72	12.49	6.78	7.40	<b>PB</b>	# of strides	12.63	11.72	12.49	14.18	24.35	26.67	2.32			
velocity		7.92	8.53	8.01	7.37	6.76	7.84	7.92	8.53	8.01	7.05	8.21	7.50				
<b>Green, Nicole (USA) (1971)</b>	12.63	24.25	36.90	43.74	51.09	51.09	3 / 4										
reaction time	interval	11.62	12.65	6.84	7.35	<b>PB</b>	# of strides	12.63	11.62	12.65	14.19	24.25	26.84	2.59			
velocity		7.92	8.61	7.91	7.31	6.80	7.83	7.92	8.61	7.91	7.05	8.25	7.45				
<b>Porter, Shanelle (USA) (1972</b>	12.55	24.15	36.78	43.68	51.35	51.35	5 / 5										
reaction time	interval	11.60	12.63	6.90	7.67		# of strides	12.55	11.60	12.63	14.57	24.15	27.20	3.05			
velocity		7.97	8.62	7.92	7.25	6.52	7.79	7.97	8.62	7.92	6.86	8.28	7.35				
<b>Howard-Hill, Denean (USA) (</b>	12.05	23.78	36.65	43.85	51.74	51.74	2 / 6										
reaction time	interval	11.73	12.87	7.20	7.89		# of strides	12.05	11.73	12.87	15.09	23.78	27.96	4.18			
velocity		8.30	8.53	7.77	6.94	6.34	7.73	8.30	8.53	7.77	6.63	8.41	7.15				
<b>Jones, Janeen (USA) (1972)</b>	12.70	24.66	37.60	44.77	52.49	52.49	7 / 7										
reaction time	interval	11.96	12.94	7.17	7.72		# of strides	12.70	11.96	12.94	14.89	24.66	27.83	3.17			
velocity		7.87	8.36	7.73	6.97	6.48	7.62	7.87	8.36	7.73	6.72	8.11	7.19				
<b>Reid, Suziann (USA) (1977)</b>	12.56	24.76	38.55	46.18	54.39	54.39	8 / 8										
reaction time	interval	12.20	13.79	7.63	8.21		# of strides	12.56	12.20	13.79	15.84	24.76	29.63	4.87			

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

velocity	7.96	8.20	7.25	6.55	6.09	7.35	7.96	8.20	7.25	6.31	8.08	6.75
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**1995 IAAF World Championships (Gothenburg, SWE)****FINAL**

date 08-Aug-95

Butler (2013) - IAAF world championships statistics handbook- moscow 2013

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Pérec, Marie-José (FRA) (1995)</b>	time			23.5		35.7		49.28	49.28	6 / 1							
	reaction time	interval				12.20		13.58		# of strides			12.20	13.58	23.50	25.78	2.28
		velocity		8.51		8.20		7.36	8.12	174.7			8.20	7.36	8.51	7.76	
<b>Davis, Pauline (BAH) (1966)</b>								<b>NR</b>	49.96	5 / 2							
<b>Miles, Jearl (USA) (1966)</b>									50.00	3 / 3							
<b>Freeman, Cathy (AUS) (1973)</b>	time			23.3		35.7		50.6	50.60	4 / 4							
	reaction time	interval				12.40		14.90		# of strides			12.40	14.90	23.30	27.30	4.00
		velocity		8.58		8.06		6.71	7.91				8.06	6.71	8.58	7.33	
<b>Yusuf, Fatima (NGR) (1976)</b>									50.70	1 / 5							
<b>Ogunkoya, Falilat (NGR) (1968)</b>									50.77	8 / 6							
<b>Malone, Maicel (USA) (1969)</b>									50.99	7 / 7							
<b>Richards, Sandie (JAM) (1968)</b>									51.13	2 / 8							

**1994 Herculis (Monaco, MON)****FINAL**

date 02-Aug-94

Vazel (2011) - speed reserve in the 400m

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Freeman, Cathy (AUS) (1973)</b>	time	12.5		24.3		36.9		50.2	50.18	1 / 1							
	reaction time	interval		11.80		12.60		13.30	<b>PB</b>	# of strides	12.50	11.80	12.60	13.30	24.30	25.90	1.60
		velocity		8.00		8.47		7.94	7.97		8.00	8.47	7.94	7.52	8.23	7.72	

**1993 Chinese National Games (Beijing, CHN)****FINAL**

date 11-Sep-93

Wang (2012) - Research on the analysis of the speed distribution of China's outstanding female 400-meter runners

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Ma Yuqin (CHN) (1972)</b>	time	12.03		23.98		36.63		49.81	49.81	1 / 1							
	reaction time	interval		11.95		12.65		13.18	<b>AR</b>	# of strides	12.03	11.95	12.65	13.18	23.98	25.83	1.85
		velocity		8.31		8.37		7.59	8.03		8.31	8.37	7.91	7.59	8.34	7.74	

**1993 IAAF World Championships (Stuttgart, GER)****FINAL**

date 17-Aug-93

Butler (2013) - IAAF world championships statistics handbook- moscow 2013

Smith (1994) - 400m pace control

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Miles-Clark, Jearl (USA) (1966)</b>	time			23.95		36.33		49.82	49.82	6 / 1							
	reaction time	interval				12.38		13.49	<b>PB</b>	# of strides			12.38	13.49	23.95	25.87	1.92
		velocity		8.35		8.08		7.41	8.03				8.08	7.41	8.35	7.73	
<b>Kaiser-Brown, Natasha (USA) (1966)</b>	time			23.78				50.17	50.17	3 / 2							
	reaction time	interval						26.39		# of strides					23.78	26.39	2.61
		velocity		8.41				7.58	7.97					8.41	7.58		
<b>Richards, Sandie (JAM) (1966)</b>	time			23.77				50.44	50.44	4 / 3							
	reaction time	interval						26.67		# of strides					23.77	26.67	2.90
		velocity		8.41				7.50	7.93					8.41	7.50		
<b>Alekseyeva, Tatyana (RUS) (1966)</b>	time			23.48				50.52	50.52	5 / 4							
	reaction time	interval						27.04		# of strides					23.48	27.04	3.56
		velocity		8.52				7.40	7.92					8.52	7.40		
<b>Restrepo, Ximena (COL) (1993)</b>	time			23.71				50.91	50.91	2 / 5							
	reaction time	interval						27.20		# of strides					23.71	27.20	3.49
		velocity		8.44				7.35	7.86					8.44	7.35		
<b>Myers, Sandra (ESP) (1961)</b>	time			23.63				51.22	51.22	1 / 6							
	reaction time	interval						27.59		# of strides					23.63	27.59	3.96
		velocity		8.46				7.25	7.81					8.46	7.25		
<b>Campbell, Juliet (JAM) (1970)</b>	time			24.27				51.4	51.40	7 / 7							
	reaction time	interval						27.13		# of strides					24.27	27.13	2.86
		velocity		8.24				7.37	7.78					8.24	7.37		
<b>Carabalí, Norfalia (COL) (1966)</b>	time			24.85				51.92	51.92	8 / --							
	reaction time	interval						27.07	<b>DQ</b>	# of strides					24.85	27.07	2.22
		velocity		8.05				7.39	7.70					8.05	7.39		

**1992 Olympic Games (Barcelona, ESP)****FINAL**

date 05-Aug-92

Butler (2016) - IAAF statistics handbook- special edition: Games of the XXXI Olympiad- Rio 2016

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Pérec, Marie-José (FRA) (1992)</b>	time			23.8		35.5		48.9	48.83	5 / 1							
	reaction time	interval				11.70		13.40		# of strides			11.70	13.40	23.80	25.10	1.30
		velocity		8.40		8.55		7.46	8.19				8.55	7.46	8.40	7.97	
<b>Bryzgina, Olga (URS) (1963)</b>	time			23.7		35.4		49.1	49.05	3 / 2							
	reaction time	interval				11.70		13.70		# of strides			11.70	13.70	23.70	25.40	1.70
		velocity		8.44		8.55		7.30	8.15				8.55	7.30	8.44	7.87	
<b>Restrepo, Ximena (COL) (1992)</b>	time			24.0		35.7		49.7	49.64	5 / 3							
	reaction time	interval				11.70		14.00	<b>NR</b>	# of strides			11.70	14.00	24.00	25.70	1.70
		velocity		8.33		8.55		7.14	8.06				8.55	7.14	8.33	7.78	
<b>Nazarova, Olga (URS) (1965)</b>	time			24.0		35.8		49.7	49.69	8 / 4							

reaction time	interval		11.80	13.90		# of strides		11.80	13.90	24.00	25.70	1.70
	velocity	8.33	8.47	7.19	8.05			8.47	7.19	8.33	7.78	
<b>Richardson-Briscoe, Jillian</b> ( time		23.9	35.8	50.0	49.93	4 / 5						
reaction time	interval		11.90	14.20		# of strides		11.90	14.20	23.90	26.10	2.20
	velocity	8.37	8.40	7.04	8.01			8.40	7.04	8.37	7.66	
<b>Stevens, Rochelle (USA)</b> (19 time		24.1	36.2	50.1	50.11	1 / 6						
reaction time	interval		12.10	13.90		# of strides		12.10	13.90	24.10	26.00	1.90
	velocity	8.30	8.26	7.19	7.98			8.26	7.19	8.30	7.69	
<b>Richards, Sandie (JAM)</b> (196 time		24.0	36.3	50.2	50.19	2 / 7						
reaction time	interval		12.30	13.90		# of strides		12.30	13.90	24.00	26.20	2.20
	velocity	8.33	8.13	7.19	7.97			8.13	7.19	8.33	7.63	
<b>Smith, Phylis (GBR)</b> (1965 time		24.1	36.4	50.9	50.87	7 / 8						
reaction time	interval		12.30	14.50		# of strides		12.30	14.50	24.10	26.80	2.70
	velocity	8.30	8.13	6.90	7.86			8.13	6.90	8.30	7.46	

**1992 Nikaia (Nice, FRA)****FINAL**

date 15-Jul-92

Vazel (2020) - Pérec vs Torrence 400m Nice battle of titans

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Pérec, Marie-José (FRA)</b> (19 time				23.7		35.12		49.50	49.50	4 / 1							
reaction time						12.30		25.80		# of strides					23.70	25.80	2.10
				8.44		8.13		7.75	8.08						8.44	7.75	
<b>Torrence, Gwen (USA)</b> (1965 time				24.3		35.39		49.64	49.64	5 / 2							
reaction time						12.39		25.34	<b>PB</b>	# of strides					24.30	25.34	1.04
				8.23		8.07		7.89	8.06						8.23	7.89	

**1991 IAAF World Championships (Tokyo, JPN)****FINAL**

date 27-Aug-91

Butler (2013) - IAAF world championships statistics handbook- moscow 2013

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Pérec, Marie-José (FRA)</b> (19 time				22.82		35.12		49.13	49.13	4 / 1							
reaction time						12.30		14.01	<b>NR</b>	# of strides					12.30	14.01	22.82
				8.76		8.13		7.14	8.14	170.7					8.13	7.14	8.76
<b>Breuer, Grit (GER)</b> (1972) time				23.00		35.39		49.42	49.42	3 / 2							
reaction time						12.39		14.03	<b>WJR</b>	# of strides					12.39	14.03	23.00
				8.70		8.07		7.13	8.09	193.5					8.07	7.13	8.70
<b>Myers, Sandra (ESP)</b> (1961) time				23.82		35.96		49.78	49.78	5 / 3							
reaction time						25.96		25.96		# of strides					23.82	25.96	2.14
				8.40		7.70		7.70	8.04	193.7					8.40	7.70	
<b>Bryzgina, Olga (URS)</b> (1963) time				23.49		36.33		49.82	49.82	6 / 4							
reaction time						26.33		26.33		# of strides					23.49	26.33	2.84
				8.51		7.60		7.60	8.03	188.7					8.51	7.60	
<b>Miles, Jearl (USA)</b> (1966) time				23.72		36.78		50.50	50.50	8 / 5							
reaction time						26.78		26.78		# of strides					23.72	26.78	3.06
				8.43		7.47		7.47	7.92						8.43	7.47	
<b>Restrepo, Ximena (COL)</b> (19 time				24.08		36.71		50.79	50.79	2 / 6							
reaction time						26.71		26.71		# of strides					24.08	26.71	2.63
				8.31		7.49		7.49	7.88						8.31	7.49	
<b>Leatherwood, Lillie (USA)</b> (1 time				24.34		36.19		51.53	51.53	7 / 7							
reaction time						27.19		27.19		# of strides					24.34	27.19	2.85
				8.22		7.36		7.36	7.76						8.22	7.36	
<b>Dixon, Diane (USA)</b> (1964) time				24.17		36.56		51.73	51.73	1 / 8							
reaction time						27.56		27.56		# of strides					24.17	27.56	3.39
				8.27		7.26		7.26	7.73						8.27	7.26	

**1991 European Cup (Frankfurt, GER)****FINAL**

date 29-Jun-91

Federle (2003) - <http://www.fgs.uni-halle.de>

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Pérec, Marie-José (FRA)</b> (19 time		12.43		23.92		35.93		49.32	49.32	6 / 1							
reaction time	0.336			11.49		12.01		13.39	<b>NR</b>	# of strides					12.43	11.49	12.01
		8.05		8.70		8.33		7.47	8.11		8.05	8.70	8.33	7.47	8.36	7.87	1.48
<b>Breuer, Grit (GER)</b> (1972) time		12.21		23.83		35.98		49.87	49.87	1 / 2							
reaction time	0.183			11.62		12.15		13.89		# of strides					12.21	11.62	12.15
		8.19		8.61		8.23		7.20	8.02	194.7	8.19	8.61	8.23	7.20	8.39	7.68	2.21
<b>Nazarova, Olga (URS)</b> (1965) time		12.79		24.35		36.74		51.17	51.17	7 / 3							
reaction time				11.56		12.39		14.43		# of strides					12.79	11.56	12.39
		7.82		8.65		8.07		6.93	7.82		7.82	8.65	8.07	6.93	8.21	7.46	2.47
<b>Keough, Linda (GBR)</b> (1963) time		12.37		24.34		37.06		51.54	51.54	8 / 4							
reaction time				11.97		12.72		14.48		# of strides					12.37	11.97	12.72
		8.08		8.35		7.86		6.91	7.76		8.08	8.35	7.86	6.91	8.22	7.35	2.86

**1990 Asian Games (Beijing, CHN)****FINAL**

date 02-Oct-90

Feng (1992) - Beijing asian games women's 100m, 200m, 400m technical analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
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<b>Li Guilian (CHN) (1970)</b>	time	12.72	24.35	37.07	52.13	52.13	/ 1										
reaction time	interval		11.63	12.72	15.06		# of strides	12.72	11.63	12.72	15.06	24.35	27.78	3.43			
	velocity	7.86	8.60	7.86	6.64	7.67	185.6	7.86	8.60	7.86	6.64	8.21	7.20				

**1989 IAAF World Cup (Barcelona, ESP)****FINAL**

date 10-Sep-89

Pascua (1990) - atletismo (I) carreras y marcha

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Pérec, Marie-José (FRA) (1961)</b>	time	12.52	24.00	36.52	50.53	50.53	/ 1											
reaction time	interval		11.48	12.52	14.01	<b>DQ</b>	# of strides	12.52	11.48	12.52	14.01	24.00	26.53	2.53				
	velocity	7.99	8.71	7.99	7.14	7.92	7.99	8.71	7.99	7.14	8.33	7.54						
<b>Quirot, Ana Fidelia (CUB) (1961)</b>	time	12.88	23.40	36.28	50.60	50.60	/ 2											
reaction time	interval		10.52	12.88	14.32		# of strides	12.88	10.52	12.88	14.32	23.40	27.20	3.80				
	velocity	7.76	9.51	7.76	6.98	7.91	7.76	9.51	7.76	6.98	8.55	7.35						
<b>Breuer, Grit (GDR) (1972)</b>	time	12.87	24.50	36.87	50.67	50.67	/ 2											
reaction time	interval		11.63	12.37	13.80		# of strides	12.87	11.63	12.37	13.80	24.50	26.17	1.67				
	velocity	7.77	8.60	8.08	7.25	7.89	7.77	8.60	8.08	7.25	8.16	7.64						
<b>Ogunkoya, Falilat (NGR) (1961)</b>	time	12.27	24.90	37.17	51.67	51.67	/ 3											
reaction time	interval		12.63	12.27	14.50		# of strides	12.27	12.63	12.27	14.50	24.90	26.77	1.87				
	velocity	8.15	7.92	8.15	6.90	7.74	8.15	7.92	8.15	6.90	8.03	7.47						
<b>Stevens, Rochelle (USA) (1961)</b>	time	12.40	24.90	37.30	52.16	52.16	/ 4											
reaction time	interval		12.50	12.40	14.86		# of strides	12.40	12.50	12.40	14.86	24.90	27.26	2.36				
	velocity	8.06	8.00	8.06	6.73	7.67	8.06	8.00	8.06	6.73	8.03	7.34						
<b>Ruzina, Yelena (URS) (1964)</b>	time	13.01	24.90	38.21	52.48	52.48	/ 5											
reaction time	interval		11.89	13.31	14.27		# of strides	13.01	11.89	13.31	14.27	24.90	27.58	2.68				
	velocity	7.69	8.41	7.51	7.01	7.62	7.69	8.41	7.51	7.01	8.03	7.25						
<b>Merino, Julia (ESP) (1971)</b>	time	13.45	25.20	38.95	53.63	53.63	/ 6											
reaction time	interval		11.75	13.75	14.68		# of strides	13.45	11.75	13.75	14.68	25.20	28.43	3.23				
	velocity	7.43	8.51	7.27	6.81	7.46	7.43	8.51	7.27	6.81	7.94	7.03						
<b>Abraham, Shiny (IND) (1965)</b>	time	13.68	25.50	31.18	53.80	53.80	/ 7											
reaction time	interval		11.82	5.68	22.62	<b>PB</b>	# of strides	13.68	11.82	5.68	22.62	25.50	28.30	2.80				
	velocity	7.31	8.46	17.61	4.42	7.43	7.31	8.46	17.61	4.42	7.84	7.07						
<b>Sambell, Kathy (AUS) (1963)</b>	time	13.41	25.01	38.42	53.92	53.92	/ 8											
reaction time	interval		11.60	13.41	15.50		# of strides	13.41	11.60	13.41	15.50	25.01	28.91	3.90				
	velocity	7.46	8.62	7.46	6.45	7.42	7.46	8.62	7.46	6.45	8.00	6.92						

**1988 Olympic Games (Seoul, KOR)****FINAL**

date 26-Sep-88

Brügemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Bryzgina, Olga (URS) (1963)</b>	time	11.94	23.41	35.47	48.65	48.65	3 / 1											
reaction time	0.215 interval		11.47	12.06	13.18	<b>OR</b>	# of strides	11.94	11.47	12.06	13.18	23.41	25.24	1.83				
	velocity	8.38	8.72	8.29	7.59	8.22	189.7	8.38	8.72	8.29	7.59	8.54	7.92					
<b>Müller, Petra (GDR) (1965)</b>	time	12.33	24.10	36.34	49.45	49.45	6 / 2											
reaction time	0.232 interval		11.77	12.24	13.11		# of strides	12.33	11.77	12.24	13.11	24.10	25.35	1.25				
	velocity	8.11	8.50	8.17	7.63	8.09	192.0	8.11	8.50	8.17	7.63	8.30	7.89					
<b>Nazarova, Olga (URS) (1965)</b>	time	12.15	23.59	35.78	49.90	49.90	4 / 3											
reaction time	0.231 interval		11.44	12.19	14.12		# of strides	12.15	11.44	12.19	14.12	23.59	26.31	2.72				
	velocity	8.23	8.74	8.20	7.08	8.02	201.5	8.23	8.74	8.20	7.08	8.48	7.60					
<b>Brisco-Hooks, Valerie (USA)</b>	time	11.71	22.94	35.47	50.16	50.16	1 / 4											
reaction time	0.196 interval		11.23	12.53	14.69		# of strides	11.71	11.23	12.53	14.69	22.94	27.22	4.28				
	velocity	8.54	8.90	7.98	6.81	7.97	199.0	8.54	8.90	7.98	6.81	8.72	7.35					
<b>Dixon, Diane (USA) (1964)</b>	time	12.29	23.93	36.58	50.72	50.72	5 / 5											
reaction time	0.197 interval		11.64	12.65	14.14		# of strides	12.29	11.64	12.65	14.14	23.93	26.79	2.86				
	velocity	8.14	8.59	7.91	7.07	7.89	8.14	8.59	7.91	7.07	8.36	7.47						
<b>Howard-Hill, Denean (USA)</b>	time	12.21	24.00	36.79	51.12	51.12	8 / 6											
reaction time	0.241 interval		11.79	12.79	14.33		# of strides	12.21	11.79	12.79	14.33	24.00	27.12	3.12				
	velocity	8.19	8.48	7.82	6.98	7.82	8.19	8.48	7.82	6.98	8.33	7.37						
<b>Arendt, Helga (FRG) (1964)</b>	time	12.53	24.33	37.06	51.17	51.17	7 / 7											
reaction time	0.218 interval		11.80	12.73	14.11		# of strides	12.53	11.80	12.73	14.11	24.33	26.84	2.51				
	velocity	7.98	8.47	7.86	7.09	7.82	7.98	8.47	7.86	7.09	8.22	7.45						
<b>Holland, Maree (AUS) (1963)</b>	time	12.29	23.94	36.72	51.25	51.25	2 / 8											
reaction time	0.221 interval		11.65	12.78	14.53		# of strides	12.29	11.65	12.78	14.53	23.94	27.31	3.37				
	velocity	8.14	8.58	7.82	6.88	7.80	8.14	8.58	7.82	6.88	8.35	7.32						

**Semi-Final 2**

date 25-Sep-88

Brügemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Bryzgina, Olga (URS) (1963)</b>	time	12.19	23.82	36.38	49.33	49.33	8 / 1											
reaction time	interval		11.63	12.56	12.95		# of strides	12.19	11.63	12.56	12.95	23.82	25.51	1.69				
	velocity	8.20	8.60	7.96	7.72	8.11	8.20	8.60	7.96	7.72	8.40	7.84						
<b>Brisco-Hooks, Valerie (USA)</b>	time	12.27	23.77	36.33	49.90	49.90	4 / 2											
reaction time	interval		11.50	12.56	13.57		# of strides	12.27	11.50	12.56	13.57	23.77	26.13	2.36				
	velocity	8.15	8.70	7.96	7.37	8.02	8.15	8.70	7.96	7.37	8.41	7.65						

<b>Holland, Maree (AUS) (1963)</b>	time	12.43	24.40	36.99	50.24	50.24	6 / 3												
	reaction time		11.97	12.59	13.25	<b>PB</b>	# of strides	12.43	11.97	12.59	13.25	24.40	25.84	1.44					
	velocity	8.05	8.35	7.94	7.55	7.96		8.05	8.35	7.94	7.55	8.20	7.74						
<b>Arendt, Helga (FRG) (1964)</b>	time	12.34	24.00	36.59	50.36	50.36	1 / 4												
	reaction time		11.66	12.59	13.77	<b>PB</b>	# of strides	12.34	11.66	12.59	13.77	24.00	26.36	2.36					
	velocity	8.10	8.58	7.94	7.26	7.94		8.10	8.58	7.94	7.26	8.33	7.59						
<b>Emmelmann, Kirsten (GDR)</b>	time	12.15	23.64	36.45	50.39	50.39	3 / 5												
	reaction time		11.49	12.81	13.94		# of strides	12.15	11.49	12.81	13.94	23.64	26.75	3.11					
	velocity	8.23	8.70	7.81	7.17	7.94		8.23	8.70	7.81	7.17	8.46	7.48						
<b>Ratray-Williams, Cathy (JAI)</b>	time	12.59	24.41	36.97	50.82	50.82	7 / 6												
	reaction time		11.82	12.56	13.85	<b>PB</b>	# of strides	12.59	11.82	12.56	13.85	24.41	26.41	2.00					
	velocity	7.94	8.46	7.96	7.22	7.87		7.94	8.46	7.96	7.22	8.19	7.57						
<b>Crooks, Charmaine (CAN) (1964)</b>	time	12.43	24.17	36.85	51.63	51.63	5 / 7												
	reaction time		11.74	12.68	14.78		# of strides	12.43	11.74	12.68	14.78	24.17	27.46	3.29					
	velocity	8.05	8.52	7.89	6.77	7.75		8.05	8.52	7.89	6.77	8.27	7.28						
<b>Carabalí, Norfalia (COL) (1964)</b>	time	12.91	25.13	38.29	52.65	52.65	2 / 8												
	reaction time		12.22	13.16	14.36		# of strides	12.91	12.22	13.16	14.36	25.13	27.52	2.39					
	velocity	7.75	8.18	7.60	6.96	7.60		7.75	8.18	7.60	6.96	7.96	7.27						

## Semi-Final 1

date 25-Sep-88

Brügemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
<b>Nazarova, Olga (URS) (1965)</b>	time	12.28	23.73	35.79	49.11	49.11	5 / 1												
	reaction time		11.45	12.06	13.32	<b>NR</b>	# of strides	12.28	11.45	12.06	13.32	23.73	25.38	1.65					
	velocity	8.14	8.73	8.29	7.51	8.14		8.14	8.73	8.29	7.51	8.43	7.88						
<b>Müller, Petra (GDR) (1965)</b>	time	12.45	23.94	36.09	49.50	49.50	4 / 2												
	reaction time		11.49	12.15	13.41		# of strides	12.45	11.49	12.15	13.41	23.94	25.56	1.62					
	velocity	8.03	8.70	8.23	7.46	8.08		8.03	8.70	8.23	7.46	8.35	7.82						
<b>Dixon, Diane (USA) (1964)</b>	time	12.03	23.56	36.06	49.84	49.84	8 / 3												
	reaction time		11.53	12.50	13.78	<b>PB</b>	# of strides	12.03	11.53	12.50	13.78	23.56	26.28	2.72					
	velocity	8.31	8.67	8.00	7.26	8.03		8.31	8.67	8.00	7.26	8.49	7.61						
<b>Howard-Hill, Denean (USA) (1964)</b>	time	12.11	23.90	36.37	49.87	49.87	3 / 4												
	reaction time		11.79	12.47	13.50	<b>PB</b>	# of strides	12.11	11.79	12.47	13.50	23.90	25.97	2.07					
	velocity	8.26	8.48	8.02	7.41	8.02		8.26	8.48	8.02	7.41	8.37	7.70						
<b>Richardson-Briscoe, Jillian (USA) (1964)</b>	time	11.99	23.57	36.19	49.91	49.91	7 / 5												
	reaction time		11.58	12.62	13.72	<b>NR</b>	# of strides	11.99	11.58	12.62	13.72	23.57	26.34	2.77					
	velocity	8.34	8.64	7.92	7.29	8.01		8.34	8.64	7.92	7.29	8.49	7.59						
<b>Thimm, Ute (FRG) (1958)</b>	time	12.07	23.80	36.15	50.28	50.28	6 / 6												
	reaction time		11.73	12.35	14.13	<b>PB</b>	# of strides	12.07	11.73	12.35	14.13	23.80	26.48	2.68					
	velocity	8.29	8.53	8.10	7.08	7.96		8.29	8.53	8.10	7.08	8.40	7.55						
<b>Payne-Wiggins, Marita (CAN) (1964)</b>	time	12.15	23.92	36.81	50.29	50.29	1 / 7												
	reaction time		11.77	12.89	13.48		# of strides	12.15	11.77	12.89	13.48	23.92	26.37	2.45					
	velocity	8.23	8.50	7.76	7.42	7.95		8.23	8.50	7.76	7.42	8.36	7.58						
<b>Neubauer, Dagmar (GDR) (1964)</b>	time	12.31	24.18	37.01	50.92	50.92	2 / 8												
	reaction time		11.87	12.83	13.91		# of strides	12.31	11.87	12.83	13.91	24.18	26.74	2.56					
	velocity	8.12	8.42	7.79	7.19	7.86		8.12	8.42	7.79	7.19	8.27	7.48						

## 1988 USA Olympic Trials (Indianapolis, IN)

## FINAL

date 18-Jul-88

Hymans (2008) - history of the US olympic trials - track and field

<b>Dixon, Diane (USA) (1964)</b>	no information available								50.38	8 / 1									
<b>Howard-Hill, Denean (USA) (1964)</b>	no information available								50.40	7 / 2									
<b>Brisco-Hooks, Valerie (USA) (1960)</b>	no information available								50.53	5 / 3									
<b>Leatherwood, Lillie (USA) (1964)</b>	no information available								50.68	2 / 5									
<b>Howard, Sherri (USA) (1962)</b>	no information available								51.63										
<b>Malone, Maicel (USA) (1969)</b>	time		23.4						51.93	6 / 6									
	reaction time								28.5	# of strides					23.40	28.53	5.13		
	velocity		8.55						7.01					8.55	7.01				
<b>Miles, Jearl (USA) (1966)</b>	no information available								52.14	3 / 7									
<b>Dendy, Terri (USA) (1965)</b>	no information available								52.82	9 / 8									

## 1988 French National Championships (Tours, FRA)

## FINAL

date 14-Aug-88

Vazel (2011) - speed reserve in the 400m

<b>Pérec, Marie-José (FRA) (1964)</b>	time	12.8	24.6	37.4	51.3	51.35	1 / 1												
	reaction time		11.80	12.80	13.90	<b>PB</b>	# of strides	12.80	11.80	12.80	13.90	24.60	26.70	2.10					
	velocity	7.81	8.47	7.81	7.19	7.79		7.81	8.47	7.81	7.19	8.13	7.49						

## 1988 Nikaia (Nice, FRA)

## FINAL

date 10-Jul-88

Veney - split times from PJ

<b>Jackson, Grace (JAM) (1961)</b>	time	12.52	23.91	36.39	49.57	49.57	1 / 1												
	reaction time		11.39	12.48	13.18	<b>PB</b>	# of strides	12.52	11.39	12.48	13.18	23.91	25.66	1.75					

velocity	7.99	8.78	8.01	7.59	8.07	7.99	8.78	8.01	7.59	8.36	7.79		
<b>Quirot, Ana Fidelia (CUB) (1</b> time	12.10	23.59	36.13	49.81	49.81	/ 2							
reaction time	interval	11.49	12.54	13.68		# of strides	12.10	11.49	12.54	13.68	23.59	26.22	2.63
velocity	8.26	8.70	7.97	7.31	8.03		8.26	8.70	7.97	7.31	8.48	7.63	

**1987 IAAF World Championships (Rome, ITA)****FINAL**

date 31-Aug-87

Moravec (1990) - time analysis of the sprints - Rome 1987 Scientific Report (2nd ed)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Bryzgina, Olga (URS) (1963)</b> time	12.34	23.82	36.15	49.38	49.38	2 / 1											
reaction time	interval	11.48	12.33	13.23		# of strides	12.34	11.48	12.33	13.23	23.82	25.56	1.74				
velocity	8.10	8.71	8.11	7.56	8.10		8.10	8.71	8.11	7.56	8.40	7.82					
<b>Müller, Petra (GDR) (1965)</b> time	12.20	23.64	36.07	49.94	49.94	3 / 2											
reaction time	interval	11.44	12.43	13.87		# of strides	12.20	11.44	12.43	13.87	23.64	26.30	2.66				
velocity	8.20	8.74	8.05	7.21	8.01		8.20	8.74	8.05	7.21	8.46	7.60					
<b>Emmelmann, Kirsten (GDR)</b> time	12.21	23.75	36.35	50.20	50.20	6 / 3											
reaction time	interval	11.54	12.60	13.85		# of strides	12.21	11.54	12.60	13.85	23.75	26.45	2.70				
velocity	8.19	8.67	7.94	7.22	7.97		8.19	8.67	7.94	7.22	8.42	7.56					
<b>Pinigina, Mariya (URS) (1958)</b> time	12.40	23.85	36.53	50.53	50.53	5 / 4											
reaction time	interval	11.45	12.68	14.00		# of strides	12.40	11.45	12.68	14.00	23.85	26.68	2.83				
velocity	8.06	8.73	7.89	7.14	7.92		8.06	8.73	7.89	7.14	8.39	7.50					
<b>Leatherwood, Lillie (USA) (1</b> time	12.70	24.37	37.07	50.82	50.82	7 / 5											
reaction time	interval	11.67	12.70	13.75		# of strides	12.70	11.67	12.70	13.75	24.37	26.45	2.08				
velocity	7.87	8.57	7.87	7.27	7.87		7.87	8.57	7.87	7.27	8.21	7.56					
<b>Richardson, Jillian (CAN) (1</b> time	12.82	24.76	37.32	51.03	51.03	8 / 6											
reaction time	interval	11.94	12.56	13.71		# of strides	12.82	11.94	12.56	13.71	24.76	26.27	1.51				
velocity	7.80	8.38	7.96	7.29	7.84		7.80	8.38	7.96	7.29	8.08	7.61					
<b>Dixon, Diane (USA) (1964)</b> time	12.32	23.94	37.01	51.13	51.13	4 / 7											
reaction time	interval	11.62	13.07	14.12		# of strides	12.32	11.62	13.07	14.12	23.94	27.19	3.25				
velocity	8.12	8.61	7.65	7.08	7.82		8.12	8.61	7.65	7.08	8.35	7.36					
<b>Nazarova, Olga (URS) (1965)</b> time	12.90	24.68	37.40	51.20	51.20	1 / 8											
reaction time	interval	11.78	12.72	13.80		# of strides	12.90	11.78	12.72	13.80	24.68	26.52	1.84				
velocity	7.75	8.49	7.86	7.25	7.81		7.75	8.49	7.86	7.25	8.10	7.54					

**Semi-Final 3**

date 30-Aug-87

Moravec (1990) - time analysis of the sprints - Rome 1987 Scientific Report (2nd ed)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Emmelmann, Kirsten (GDR)</b> time	12.39	24.15	36.78	50.53	50.53	7 / 1											
reaction time	interval	11.76	12.63	13.75		# of strides	12.39	11.76	12.63	13.75	24.15	26.38	2.23				
velocity	8.07	8.50	7.92	7.27	7.92		8.07	8.50	7.92	7.27	8.28	7.58					

**Semi-Final 2**

date 30-Aug-87

Moravec (1990) - time analysis of the sprints - Rome 1987 Scientific Report (2nd ed)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Müller, Petra (GDR) (1965)</b> time	12.11	23.98	36.43	50.15	50.15	7 / 1											
reaction time	interval	11.87	12.45	13.72		# of strides	12.11	11.87	12.45	13.72	23.98	26.17	2.19				
velocity	8.26	8.42	8.03	7.29	7.98		8.26	8.42	8.03	7.29	8.34	7.64					
<b>Bryzgina, Olga (URS) (1963)</b> time	12.21	24.09	36.74	50.88	50.88	9 / 2											
reaction time	interval	11.88	12.65	14.14		# of strides	12.21	11.88	12.65	14.14	24.09	26.79	2.70				
velocity	8.19	8.42	7.91	7.07	7.86		8.19	8.42	7.91	7.07	8.30	7.47					

**Heat 6**

date 29-Aug-87

Moravec (1990) - time analysis of the sprints - Rome 1987 Scientific Report (2nd ed)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Emmelmann, Kirsten (GDR)</b> time	12.32	23.98	36.74	51.62	51.62	7 / 1											
reaction time	interval	11.66	12.76	14.88		# of strides	12.32	11.66	12.76	14.88	23.98	27.64	3.66				
velocity	8.12	8.58	7.84	6.72	7.75		8.12	8.58	7.84	6.72	8.34	7.24					

**Heat 2**

date 29-Aug-87

Moravec (1990) - time analysis of the sprints - Rome 1987 Scientific Report (2nd ed)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Müller, Petra (GDR) (1965)</b> time	12.59	24.81	37.30	51.68	51.68	7 / 1											
reaction time	interval	12.22	12.49	14.38		# of strides	12.59	12.22	12.49	14.38	24.81	26.87	2.06				
velocity	7.94	8.18	8.01	6.95	7.74		7.94	8.18	8.01	6.95	8.06	7.44					

**Heat 1**

date 29-Aug-87

Moravec (1990) - time analysis of the sprints - Rome 1987 Scientific Report (2nd ed)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Bryzgina, Olga (URS) (1963)</b> time	12.51	24.50	37.22	51.62	51.62	8 / 1											
reaction time	interval	11.99	12.72	14.40		# of strides	12.51	11.99	12.72	14.40	24.50	27.12	2.62				
velocity	7.99	8.34	7.86	6.94	7.75		7.99	8.34	7.86	6.94	8.16	7.37					

**1986 European Championships (Stuttgart, FRG)****FINAL**

date 28-Aug-86

Bondarchuk (2007) - transfer of training in sports

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Koch, Marita (GDR) (1957)</b> time	11.79	22.63	34.67	48.22	48.22	/ 1											
reaction time	interval	10.84	12.04	13.55		# of strides	11.79	10.84	12.04	13.55	22.63	25.59	2.96				
velocity	8.48	9.23	8.31	7.38	8.30		8.48	9.23	8.31	7.38	8.84	7.82					
<b>Bryzgina, Olga (URS) (1963)</b> time	11.82	23.41	35.75	49.67	49.67	/ 2											
reaction time	interval	11.59	12.34	13.92		# of strides	11.82	11.59	12.34	13.92	23.41	26.26	2.85				
velocity	8.46	8.63	8.10	7.18	8.05		8.46	8.63	8.10	7.18	8.54	7.62					
<b>Müller, Petra (GDR) (1965)</b>	no information available								49.88	/ 3							



Emmelmann, Kirsten (GDR) (1961)	no information available	50.43	/ 4
Thimm, Ute (FRG) (1958)	no information available	51.15	/ 5
Kocembova, Tatána (TCH) (1962)	no information available	51.50	/ 6
Ficher, Fabienne (FRA) (1966)	no information available	51.91	/ 7
Lix, Karin (FRG) (1965)	no information available	52.89	/ 8

**1986 Golden Oval (Dresden, GDR)**

FINAL		date	Bondarchuk (2007) - transfer of training in sports																
		16-Aug-86	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Müller, Petra (GDR) (1965)	time		11.00			22.14				49.79	49.79	/ 2							
	reaction time					11.14				27.65		# of strides	11.00	11.14			22.14	27.65	5.51
	velocity		9.09			8.98				7.23	8.03		9.09	8.98			9.03	7.23	

**1986 Bulgarian National Championships (Sofia, BUL)**

FINAL		date	Bondarchuk (2007) - transfer of training in sports																
		13-Aug-86	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Pavlova, Pepa (BUL) (1961)	time		11.30			22.68				51.40	51.40	/ 1							
	reaction time					11.38				28.72	<b>PB</b>	# of strides	11.30	11.38			22.68	28.72	6.04
	velocity		8.85			8.79				6.96	7.78		8.85	8.79			8.82	6.96	

**1986 IAAF World Junor Championships (Athens, GRE)**

FINAL		date	Moravec (1986) - IAAF biomechanical research - Athens 1986 - sprints																
		18-Jul-86	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Sieger, Susanne (GDR) (1966)	time		12.82			24.57		37.44		52.02	52.02	/ 1							
	reaction time					11.75		12.87		14.58	<b>CR</b>	# of strides	12.82	11.75	12.87	14.58	24.57	27.45	2.88
	velocity		7.80			8.51		7.77		6.86	7.69		7.80	8.51	7.77	6.86	8.14	7.29	
Pesnopevtseva, Olga (URS) (1961)	time		13.11			25.38		37.74		52.17	52.17	/ 2							
	reaction time					12.27		12.36		14.43		# of strides	13.11	12.27	12.36	14.43	25.38	26.79	1.41
	velocity		7.63			8.15		8.09		6.93	7.67		7.63	8.15	8.09	6.93	7.88	7.47	
Richards, Sandie (JAM) (1961)	time		13.01			24.96		38.06		52.23	52.23	/ 3							
	reaction time					11.95		13.10		14.17		# of strides	13.01	11.95	13.10	14.17	24.96	27.27	2.31
	velocity		7.69			8.37		7.63		7.06	7.66		7.69	8.37	7.63	7.06	8.01	7.33	
Vickers, Janeene (USA) (1968)										52.25		/ 4							
Downing, Tasha (USA) (1970)										53.21		/ 5							
Andrei, Lacomioara (ROM) (1969)										53.57		/ 6							
Kurach, Malgorzata (POL) (1969)										54.18		/ 7							
Alge, Ulrike (AUT) (1969)										54.55		/ 8							

**1985 IAAF World Cup (Canberra, AUS)**

FINAL		date	Vazel (2011) - speed reserve in the 400m																
		06-Oct-85	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Koch, Marita (GDR) (1957)	time		11.30			22.90		34.60		47.60	47.60	2 / 1							
	reaction time					11.60		11.70		13.00	<b>WR</b>	# of strides	11.30	11.60	11.70	13.00	22.90	24.70	1.80
	velocity		8.85			8.62		8.55		7.69	8.40	196.0	8.85	8.62	8.55	7.69	8.73	8.10	
Bryzgina, Olga (URS) (1963)										<b>NR</b>	48.27	1 / 2							
Leatherwood, Lillie (USA) (1964)										50.43		8 / 3							
Quirot, Ana Fidelia (CUB) (1963)	time				24.9					50.9	50.86	6 / 4							Vazel (2011)
	reaction time									26.00	<b>PB</b>	# of strides					24.90	26.00	1.10
	velocity				8.03					7.69	7.86						8.03	7.69	
Kratochvilova, Jarmila (CZE) (1951)										50.95		7 / 5							
Flintoff, Debbie (AUS) (1960)										51.57		5 / 6							
Usha, P. T. (IND) (1964)										51.61		4 / 7							
Vaughan, Kehinde (NGR) (1961)										53.16		3 / 8							

**1984 Women's Friendship Games (Praha, TCH)**

FINAL		date	Saunders (2015) - 400m performance- time as percentages splits																
		16-Aug-84	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Koch, Marita (GDR) (1957)	time		11.79			22.62		34.67		48.19	48.16	/ 1							
	reaction time					10.83		12.05		13.52		# of strides	11.79	10.83	12.05	13.52	22.62	25.57	2.95
	velocity		8.48			9.23		8.30		7.40	8.31		8.48	9.23	8.30	7.40	8.84	7.82	
Bryzgina, Olga (URS) (1963)	time		11.82			23.41		35.76		49.55	49.52	/ 3							
	reaction time					11.59		12.35		13.79		# of strides	11.82	11.59	12.35	13.79	23.41	26.14	2.73
	velocity		8.46			8.63		8.10		7.25	8.08		8.46	8.63	8.10	7.25	8.54	7.65	
Stamenova, Rositsa (BUL) (1961)	time		11.3			23.64				50.82	50.82	/ 6							
	reaction time					12.34				27.18	<b>PB</b>	# of strides	11.30	12.34			23.64	27.18	3.54
	velocity		8.85			8.10				7.36	7.87		8.85	8.10			8.46	7.36	

**1984 Olympic Games (Los Angeles, CA)**

FINAL		date	Adams (1984) - 1984 olympic games - 200m & 400m																
		06-Aug-84	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Brisco-Hooks, Valerie (USA) (1954)	time					23.5				48.83	48.83	5 / 1							
	reaction time		0.182							25.33	<b>OR / NR</b>	# of strides					23.50	25.33	1.83
	velocity					8.51				7.90	8.19	192.5					8.51	7.90	
Chesborough, Chandra (USA) (1961)	time					24.2				49.05	49.05	7 / 2							
	reaction time		0.212							24.85	<b>PB</b>	# of strides					24.20	24.85	0.65
	velocity					8.26				8.05	8.15	192.0					8.26	8.05	

<b>Cook, Kathy (GBR) (1960)</b>	time	23.4	49.43	49.43	6 / 3													
	reaction time	0.208	interval	26.03	<b>NR</b>	# of strides	23.40	26.03	2.63									
	velocity	8.55	7.68	8.09	178.0		8.55	7.68										
<b>Payne-Wiggins, Marita (CAN)</b>	time	24.6	49.91	49.91	2 / 4													
	reaction time	0.251	interval	25.31	<b>NR</b>	# of strides	24.60	25.31	0.71									
	velocity	8.13	7.90	8.01			8.13	7.90										
<b>Leatherwood, Lillie (USA) (1958)</b>	time	24.4	50.25	50.25	8 / 5													
	reaction time	0.260	interval	25.85		# of strides	24.40	25.85	1.45									
	velocity	8.20	7.74	7.96			8.20	7.74										
<b>Thimm, Ute (FRG) (1958)</b>	time	24.9	50.37	50.37	1 / 6													
	reaction time	0.215	interval	25.47		# of strides	24.90	25.47	0.57									
	velocity	8.03	7.85	7.94			8.03	7.85										
<b>Crooks, Charmaine (CAN) (1958)</b>	time	24.8	50.45	50.45	3 / 7													
	reaction time	0.239	interval	25.65	<b>PB</b>	# of strides	24.80	25.65	0.85									
	velocity	8.06	7.80	7.93			8.06	7.80										
<b>Waithera, Ruth (KEN) (1958)</b>	time	25.1	51.56	51.56	4 / 8													
	reaction time	0.334	interval	26.46		# of strides	25.10	26.46	1.36									
	velocity	7.97	7.56	7.76			7.97	7.56										

**Semi-Final 2 (TV A)** date 05-Aug-84

Adams (1984) - 1984 olympic games - 200m &amp; 400m

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Probert-Scutt, Michelle (GBF) (1957)</b>				24.41				52.07	52.07	4 / 6							
								27.66		# of strides					24.41	27.66	3.25
				8.19				7.23	7.68						8.19	7.23	
<b>Barnett-Burkart, Helen (GBF) (1957)</b>				23.88				52.26	52.26	7 / 8							
								28.38		# of strides					23.88	28.38	4.50
				8.38				7.05	7.65						8.38	7.05	

**1984 East German Spitzenklasse (Dresden, GDR)****FINAL**

date 26-Jul-84

Heß (1985) - entwicklungsaspekte die leichtathletischen sprint-/hürdendisziplinen im olympiazklus 1981/84

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Koch, Marita (GDR) (1957)</b>		11.64		22.88		34.99		48.26	48.26	1 / 1							
				11.24		12.11		13.27		# of strides	11.64	11.24	12.11	13.27	22.88	25.38	2.50
		8.59		8.90		8.26		7.54	8.29		8.59	8.90	8.26	7.54	8.74	7.88	

**1984 USA Olympic Trials (Los Angeles, CA)****FINAL**

date 19-Jun-84

Hymans (2008) - history of the US olympic trials - track and field

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Cheeseborough, Chandra (L) (1957)</b>				23.8				49.3	49.28	5 / 1							
								25.5	<b>NR</b>	# of strides					23.80	25.50	1.70
				8.40				7.84	8.12						8.40	7.84	
<b>Brisco-Hooks, Valerie (USA) (1957)</b>				23.0				49.8	49.79	3 / 2							
								26.8		# of strides					23.00	26.80	3.80
				8.70				7.46	8.03						8.70	7.46	
<b>Leatherwood, Lillie (USA) (1958)</b>				24.4				50.2	50.19	6 / 3							
								25.8	<b>PB</b>	# of strides					24.40	25.80	1.40
				8.20				7.75	7.97						8.20	7.75	
<b>Howard, Sherri (USA) (1962)</b>				23.5				50.4	50.40	8 / 4							
								26.9		# of strides					23.50	26.90	3.40
				8.51				7.43	7.94						8.51	7.43	
<b>Howard, Denean (USA) (1962)</b>				24.0				51.1	51.05	7 / 5							
								27.1		# of strides					24.00	27.10	3.10
				8.33				7.38	7.84						8.33	7.38	
<b>Griffith, Florence (USA) (1955)</b>				23.8				51.2	51.11	4 / 6							
								27.4		# of strides					23.80	27.40	3.60
				8.40				7.30	7.83						8.40	7.30	
<b>Dixon, Diane (USA) (1964)</b>				23.9				51.3	51.26	1 / 7							
								27.4		# of strides					23.90	27.40	3.50
				8.37				7.30	7.80						8.37	7.30	
<b>Belle, Roberta (USA) (1958)</b>				24.7				51.3	51.26	2 / 8							
								26.6		# of strides					24.70	26.60	1.90
				8.10				7.52	7.80						8.10	7.52	

**1984 East German National Championships (Erfurt, GDR)****FINAL**

date 02-Jun-84

Heß (1985) - entwicklungsaspekte die leichtathletischen sprint-/hürdendisziplinen im olympiazklus 1981/84

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential	
<b>Koch, Marita (GDR) (1957)</b>				no information available					48.86		1 / 1							
<b>Busch, Sabine (GDR) (1962)</b>		12.54		24.06		36.08		49.24	49.24	1 / 2								
				11.52		12.02		13.16	<b>PB</b>	# of strides	12.54	11.52	12.02	13.16	24.06	25.18	1.12	
		7.97		8.68		8.32		7.60	8.12		7.97	8.68	8.32	7.60	8.31	7.94		
<b>Rübsam-Neubauer, Dagmar (1957)</b>		12.46		24.12		36.43		49.58	49.58	1 / 3								
				11.66		12.31		13.15	<b>PB</b>	# of strides	12.46	11.66	12.31	13.15	24.12	25.46	1.34	

velocity	8.03	8.58	8.12	7.60	8.07	8.03	8.58	8.12	7.60	8.29	7.86
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**1983 IAAF World Championships (Helsinki, FIN)**

Butler (2013) - IAAF world championships statistics handbook- moscow 2013

**FINAL**

date 10-Aug-83

Veny - split times from PJ

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Kratochvílová, Jarmila (TCH)</b> time				23.1				48.0	47.99	3 / 1							Butler (2013)
reaction time								24.9	<b>WR / CR</b>	# of strides					23.10	24.90	1.80
interval																	
velocity				8.66				8.03	8.34	196.7					8.66	8.03	
<b>Kocembová, Tatána (TCH)</b> ( time	12.40			23.50	35.24			48.59	48.59	1 / 2							Veny - split times from PJ
reaction time				11.10	11.74			13.35	<b>PB</b>	# of strides	12.40	11.10	11.74	13.35	23.50	25.09	1.59
interval																	
velocity	8.06			9.01	8.52			7.49	8.23		8.06	9.01	8.52	7.49	8.51	7.97	
<b>Kulchunova-Pinigina, Mariya</b> time				23.2				49.2	49.19	4 / 3							Butler (2013)
reaction time								26.0		# of strides					23.20	26.00	2.80
interval																	
velocity				8.62				7.69	8.13						8.62	7.69	
<b>Bussman, Gaby (FRG) (1959)</b> time				23.9				49.8	49.75	5 / 4							Butler (2013)
reaction time								25.9		# of strides					23.90	25.90	2.00
interval																	
velocity				8.37				7.72	8.04						8.37	7.72	
<b>Payne-Wiggins, Marita (CAN)</b> time				23.6				50.1	50.06	6 / 5							Butler (2013)
reaction time								26.5	<b>AR</b>	# of strides					23.60	26.50	2.90
interval																	
velocity				8.47				7.55	7.99						8.47	7.55	
<b>Baskakova, Irina (URS) (1956)</b> time				24.1				50.5	50.48	8 / 6							Butler (2013)
reaction time								26.4		# of strides					24.10	26.40	2.30
interval																	
velocity				8.30				7.58	7.92						8.30	7.58	
<b>Rübsam-Neubauer, Dagmar</b> time				24.1				50.5	50.48	7 / 7							Butler (2013)
reaction time								26.4		# of strides					24.10	26.40	2.30
interval																	
velocity				8.30				7.58	7.92						8.30	7.58	
<b>Bryant, Rosalyn (USA) (1956)</b> time				24.9				50.7	50.66	7 / 8							Butler (2013)
reaction time								25.8		# of strides					24.90	25.80	0.90
interval																	
velocity				8.03				7.75	7.90						8.03	7.75	

**1982 European Championships (Athens, GRE)****FINAL**

date 08-Sep-82

Heß (1985) - entwicklungsaspekte die leichtathletischen sprint-/hürdendisziplinen im olympiazklus 1981/84

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Koch, Marita (GDR) (1957)</b> time	11.82			22.80		34.75		48.16	48.16	3 / 1							
reaction time				10.98		11.95		13.41	<b>WR</b>	# of strides	11.82	10.98	11.95	13.41	22.80	25.36	2.56
interval																	
velocity	8.46			9.11		8.37		7.46	8.31		8.46	9.11	8.37	7.46	8.77	7.89	
<b>Kratochvílová, Jarmila (TCH) (1951)</b>	no information available								<b>NR</b>	48.85	4 / 2						
<b>Kocembová, Tatána (TCH)</b> ( time	12.40			24.38		37.00		50.55	50.55	1 / 3							
reaction time				11.98		12.62		13.55		# of strides	12.40	11.98	12.62	13.55	24.38	26.17	1.79
interval																	
velocity	8.06			8.35		7.92		7.38	7.91		8.06	8.35	7.92	7.38	8.20	7.64	
<b>Busch, Sabine (GDR) (1962)</b>	no information available								50.57	1 / 4							
<b>Baskakova, Irina (URS) (1956)</b>	no information available								50.58	1 / 5							
<b>Rübsam, Dagmar (GDR) (1962)</b>	no information available								50.76	1 / 6							
<b>Bussmann, Gabriele (FRG) (1959)</b>	no information available								50.93	1 / 7							
<b>Forgacs, Judit (HUN) (1959)</b>	no information available								52.49	1 / 8							

**1982 Weltklasse (Zürich, SUI)****FINAL**

date 18-Aug-82

Heß (1985) - entwicklungsaspekte die leichtathletischen sprint-/hürdendisziplinen im olympiazklus 1981/84

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Kratochvílová, Jarmila (TCH)</b> time	11.64			22.64		34.94		48.86	48.86	1 / 1							
reaction time				11.00		12.30		13.92		# of strides	11.64	11.00	12.30	13.92	22.64	26.22	3.58
interval																	
velocity	8.59			9.09		8.13		7.18	8.19		8.59	9.09	8.13	7.18	8.83	7.63	

**1982 GDR vs. USA (Karl-Marx-Stadt, GDR)****FINAL**

date 09-Jul-82

Schäfer (1989) - zu strukturmerkmalen der wettkamfeistung un den entsprechenden trainingshalten

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Koch, Marita (GDR) (1957)</b> time	11.70			22.76		34.97		48.77	48.77	1 / 1							
reaction time				11.06		12.21		13.80		# of strides	11.70	11.06	12.21	13.80	22.76	26.01	3.25
interval																	
velocity	8.55			9.04		8.19		7.25	8.20		8.55	9.04	8.19	7.25	8.79	7.69	

**1981 IAAF World Cup (Rome, ITA)****FINAL**

date 06-Sep-81

Quercetani (2005) - a world history of the one-lap race: 1850-2004

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Kratochvílová, Jarmila (TCH)</b> time	11.95			23.53		35.82		48.61	48.61	1 / 1							
reaction time				11.58		12.29		12.79	<b>PB</b>	# of strides	11.95	11.58	12.29	12.79	23.53	25.08	1.55
interval																	
velocity	8.37			8.64		8.14		7.82	8.23		8.37	8.64	8.14	7.82	8.50	7.97	
<b>Koch, Marita (GDR) (1957)</b>	no information available								49.27	1 / 2							
<b>Pusey, Jackie (JAM) (1959)</b>	no information available								51.48	1 / 3							
<b>Howard, Denean (USA) (1964)</b>	no information available								51.76	1 / 4							
<b>Rossi, Erika (ITA) (1955)</b>	no information available								52.50	1 / 5							
<b>Nasarova, Irina (URS) (1957)</b>	no information available								53.21	1 / 6							
<b>Evans, Leanne (AUS)</b>	no information available								53.44	1 / 7							
<b>Atuki, Ruth (KEN)</b>	no information available								53.58	1 / 8							
<b>Yoshica, Junko (JPN)</b>	no information available								56.00	1 / 9							



## 1980 Olympic Games (Moscow, URS)

## FINAL

date 28-Jul-80

Butler (2016) - IAAF statistics handbook- special edition: Games of the XXXI Olympiad- Rio 2016

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Koch, Marita (GDR) (1957)</b> time						35.3		48.88	48.88	4 / 1							
reaction time								13.58	<b>OR</b>	# of strides					13.58		
velocity						8.50		7.36	8.18						7.36		
<b>Kratochvilova, Jarmila (TCH)</b> time						35.6		49.46	49.46	6 / 2							
reaction time								13.86	<b>PB</b>	# of strides					13.86		
velocity						8.43		7.22	8.09						7.22		
<b>Brehmer, Christina (GDR) (1957)</b> time						36.2		49.66	49.66	5 / 3							
reaction time								13.46	<b>PB</b>	# of strides					13.46		
velocity						8.29		7.43	8.05						7.43		
<b>Nazarova, Irina (URS) (1957)</b> time						36.2		50.07	50.07	8 / 4							
reaction time								13.87	<b>PB</b>	# of strides					13.87		
velocity						8.29		7.21	7.99						7.21		
<b>Zyuskova, Nina (URS) (1952)</b> time						36.9		50.17	50.17	3 / 5							
reaction time								13.27	<b>PB</b>	# of strides					13.27		
velocity						8.13		7.54	7.97						7.54		
<b>Löwe, Gabriele (GDR) (1958)</b> time						37.6		51.33	51.33	1 / 6							
reaction time								13.73		# of strides					13.73		
velocity						7.98		7.28	7.79						7.28		
<b>Häggman, Pirjo (FIN) (1951)</b> time						37.6		51.35	51.35	2 / 7							
reaction time								13.75		# of strides					13.75		
velocity						7.98		7.27	7.79						7.27		
<b>MacDonald, Linsey (GBR) (1957)</b> time						37.8		52.40	52.40	7 / 8							
reaction time								14.60		# of strides					14.60		
velocity						7.94		6.85	7.63						6.85		

## 1980 USA Olympic Trials (Eugene, OR)

## FINAL

date 25-Jun-80

Hymans (2008) - history of the US olympic trials - track and field

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Howard, Sherri (USA) (1962)</b> time				24.2				51.5	51.48	/ 1							
reaction time								27.3		# of strides					24.20	27.30	3.10
velocity				8.26				7.33	7.77						8.26	7.33	
<b>Gardner, Gwen (USA) (1960)</b> time				24.0				51.7	51.68	/ 2							
reaction time								27.7		# of strides					24.00	27.70	3.70
velocity				8.33				7.22	7.74						8.33	7.22	
<b>Howard, Denean (USA) (1961)</b> time				24.1				51.7	51.70	/ 3							
reaction time								27.6		# of strides					24.10	27.60	3.50
velocity				8.30				7.25	7.74						8.30	7.25	
<b>Dabney, Sharon (USA) (1957)</b> time				24.6				52.0	52.00	/ 4							
reaction time								27.4		# of strides					24.60	27.40	2.80
velocity				8.13				7.30	7.69						8.13	7.30	
<b>Belle, Roberta (USA) (1958)</b> time				24.2				52.7	52.67	/ 5							
reaction time								28.5		# of strides					24.20	28.50	4.30
velocity				8.26				7.02	7.59						8.26	7.02	
<b>Thomas, Kim (USA)</b> time				25.7				52.8	52.75	/ 6							
reaction time								27.1		# of strides					25.70	27.10	1.40
velocity				7.78				7.38	7.58						7.78	7.38	
<b>Jackson, Pat (USA) (1958)</b>								51.3	53.20	/ 7							
<b>Bolton, Kelia (USA) (1960)</b>								51.3	53.34	/ 8							

## 1980 Balkan Games (Sofia, BUL)

## FINAL

date 14-Jun-80

Bondarchuk (2007) - transfer of training in sports

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Damyanova, Svobodka (BUL)</b> time		11.92		23.90				51.63	51.63	/ 1							
reaction time				11.98				27.73		# of strides	11.92	11.98			23.90	27.73	3.83
velocity		8.39		8.35				7.21	7.75		8.39	8.35			8.37	7.21	

## 1979 European Cup Final (Torino, ITA)

## FINAL

date 04-Aug-79

Hymans (2015) - progression of IAAF world records - 2015 edition

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Koch, Marita (GDR) (1957)</b> time				23.5		35.0		48.60	48.60	/ 1							
reaction time						11.50		13.60	<b>WR</b>	# of strides			11.50	13.60	23.50	25.10	1.60
velocity				8.51		8.70		7.35	8.23				8.70	7.35	8.51	7.97	

## 1979 East German Athletics Sportfest (Potsdam, GDR)

## FINAL

date 29-Jul-79

Khomenkov (1982) - a textbook for a track and field coach

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Koch, Marita (GDR) (1957)</b> time		11.83		22.84		34.76		48.89	48.89	/ 1							
reaction time				11.01		11.92		14.13	<b>WR</b>	# of strides	11.83	11.01	11.92	14.13	22.84	26.05	3.21
velocity		8.45		9.08		8.39		7.08	8.18		8.45	9.08	8.39	7.08	8.76	7.68	

## 1978 European Championships (Prague, TCH)

## FINAL

date 31-Aug-78

Lamare (1978) - championnats d'Europa 1978

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Koch, Marita (GDR) (1957)	time	11.70		23.06		35.08		48.94	48.94	5 / 1							
	reaction time			11.36		12.02		13.86	WR	# of strides	11.70	11.36	12.02	13.86	23.06	25.88	2.82
	velocity	8.55		8.80		8.32		7.22	8.17	199.2	8.55	8.80	8.32	7.22	8.67	7.73	
Brehmer, Christina (GDR) (1958)	no information available								50.38	8 / 2						# of strides	204.5
Szewinska, Irena (POL) (1946)	no information available								50.40	7 / 3						# of strides	190.2
Klutschunova, Maria (URS)	no information available								51.25	6 / 4						# of strides	201.7
Marquardt, Christine (GDR) (1958)	no information available								51.99	1 / 5							
Hartley, Donna (GBR) (1955)	no information available								52.31	4 / 6							
Häggman, Pirjo (FIN) (1951)	no information available								52.46	2 / 7							
Elder, Verona (GBR) (1953)	no information available								52.53	3 / 8							

## 1976 Olympic Games (Montreal, CAN)

## FINAL

date 29-Jul-76

Butler (2016) - IAAF statistics handbook- special edition: Games of the XXXI Olympiad- Rio 2016

Lamare (1976) - les jeux de la XXI olympia, Montreal 1976

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Szewinska, Irena (POL) (1946)	time			23.12		35.58		49.29	49.29	4 / 1							
	reaction time					12.46		13.71	WR	# of strides			12.46	13.71	23.12	26.17	3.05
	velocity			8.65		8.03		7.29	8.12				8.03	7.29	8.65	7.64	
Brehmer, Christina (GDR) (1958)	time	11.78		23.3		35.3		50.6	50.51	2 / 2							
	reaction time			11.52		12.00		15.30		# of strides	11.78	11.52	12.00	15.30	23.30	27.30	4.00
	velocity	8.49		8.68		8.33		6.54	7.92		8.49	8.68	8.33	6.54	8.58	7.33	
Strophal, Ellen (GDR) (1952)	time			23.7		35.7		50.6	50.55	8 / 3							
	reaction time					12.00		14.90		# of strides			12.00	14.90	23.70	26.90	3.20
	velocity			8.44		8.33		6.71	7.91				8.33	6.71	8.44	7.43	
Häggman, Pirjo (FIN) (1951)	time			24.0		35.9		50.6	50.56	1 / 4							
	reaction time					11.90		14.70		# of strides			11.90	14.70	24.00	26.60	2.60
	velocity			8.33		8.40		6.80	7.91				8.40	6.80	8.33	7.52	
Bryant, Rosalyn (USA) (1956)	time			23.3		35.8		50.7	50.65	7 / 5							
	reaction time					12.50		14.90		# of strides			12.50	14.90	23.30	27.40	4.10
	velocity			8.58		8.00		6.71	7.90				8.00	6.71	8.58	7.30	
Ingram, Sheila (USA) (1957)	time			24.4		35.8		50.9	50.90	3 / 6							
	reaction time					11.40		15.10		# of strides			11.40	15.10	24.40	26.50	2.10
	velocity			8.20		8.77		6.62	7.86				8.77	6.62	8.20	7.55	
Salin, Riitta (FIN) (1950)	time			23.8				51.0	50.98	6 / 7							
	reaction time							27.2		# of strides					23.80	27.20	3.40
	velocity			8.40				7.35	7.85						8.40	7.35	
Sapenter, Debra (USA) (1952)	time			24.0				51.7	51.66	5 / 8							
	reaction time							27.7		# of strides					24.00	27.70	3.70
	velocity			8.33				7.22	7.74						8.33	7.22	

## Semi-Final 2

date 26-Jul-76

Lamare (1976) - les jeux de la XXI olympia, Montreal 1976

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Brehmer, Christina (GDR) (1958)	time	12.32		24.00		36.58		50.86	50.86	4 / 2							
	reaction time			11.68		12.58		14.28		# of strides	12.32	11.68	12.58	14.28	24.00	26.86	2.86
	velocity	8.12		8.56		7.95		7.00	7.86		8.12	8.56	7.95	7.00	8.33	7.45	

## Semi-Final 1

date 26-Jul-76

Lamare (1976) - les jeux de la XXI olympia, Montreal 1976

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Szewinska, Irena (POL) (1946)	time	12.20		24.24		36.92		50.48	50.48	1 / 1							
	reaction time			12.04		12.68		13.56	OR	# of strides	12.20	12.04	12.68	13.56	24.24	26.24	2.00
	velocity	8.20		8.31		7.89		7.37	7.92		8.20	8.31	7.89	7.37	8.25	7.62	

## 1976 USA Olympic Trials (Eugene, OR)

## FINAL

date 25-Jun-76

Hymans (2008) - history of the US olympic trials - track and field

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Ingram, Sheila (USA) (1957)	time			25.8				52.69	52.69	1 / 1							
	reaction time							26.9		# of strides					25.80	26.89	1.09
	velocity			7.75				7.44	7.59						7.75	7.44	
Sapenter, Debra (USA) (1952)	time			24.8				52.73	52.73	1 / 2							
	reaction time							27.9		# of strides					24.80	27.93	3.13
	velocity			8.06				7.16	7.59						8.06	7.16	
Bryant, Rosalyn (USA) (1956)	time			24.8				52.76	52.76	1 / 3							
	reaction time							28.0		# of strides					24.80	27.96	3.16
	velocity			8.06				7.15	7.58						8.06	7.15	
Gainer, Arthurene (USA)	no information available								53.48	1 / 4							
Norman, Gwen (USA)	no information available								53.57	1 / 5							
Dabney, Sheron (USA) (1957)	no information available								54.09	1 / 6							
Williams, Veronica (USA)	no information available								54.29	1 / 7							
Williams, Shirley (USA)	no information available								54.91	1 / 8							

## 1974 Kusocinski Memorial (Warsaw, POL)

## FINAL

date 22-Jun-74

Quercentani (2000). Athletics: A history of modern track and field athletics (1860-2000)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
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<b>Szewinska, Irena (POL) (1946)</b>	time	11.8	22.9	35.7	49.9	49.9	2 / 1										
reaction time	interval		11.1	12.8	14.2	<b>WR</b>	# of strides	11.80	11.10	12.80	14.20	22.90	27.00	4.10			
	velocity	8.47	9.01	7.81	7.04	8.02		187.0	8.47	9.01	7.81	7.04	8.73	7.41			

**1972 Olympic Games (Munich, FRG)**

Butler (2016) - IAAF statistics handbook- special edition: Games of the XXXI Olympiad- Rio 2016

FINAL		date	07-Sep-72	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Zehrt, Monika (GDR) (1952)</b>	time						24.2	36.8	51.1	51.08	7 / 1									
reaction time	interval							12.60	14.28	<b>OR</b>	# of strides				12.60	14.28	24.20	26.88	2.68	
	velocity						8.26	7.94	7.00	7.83					7.94	7.00	8.26	7.44		
<b>Jahn-Wilden, Rita (FRG) (19)</b>	time						24.4	36.8	51.2	51.21	4 / 2									
reaction time	interval							26.8	26.8	# of strides								24.40	26.80	2.40
	velocity						8.20	7.46	7.81									8.20	7.46	
<b>Hammond, Kathy (USA) (19)</b>	time						24.5	36.8	51.6	51.64	5 / 3									
reaction time	interval							27.1	27.1	# of strides								24.50	27.10	2.60
	velocity						8.16	7.38	7.75									8.16	7.38	
<b>Seidler, Helga (GDR) (1949)</b>	time						24.4	36.8	51.9	51.84	6 / 4									
reaction time	interval							27.5	27.5	# of strides								24.40	27.50	3.10
	velocity						8.20	7.27	7.72									8.20	7.27	
<b>Ferguson, Mable (USA) (19)</b>	time						24.8	36.8	52.0	51.96	3 / 5									
reaction time	interval							27.2	27.2	# of strides								24.80	27.20	2.40
	velocity						8.06	7.35	7.70									8.06	7.35	
<b>Rendina, Charlene (AUS) (1)</b>	time						25.0	36.8	52.0	51.99	8 / 6									
reaction time	interval							27.0	27.0	# of strides								25.00	27.00	2.00
	velocity						8.00	7.41	7.69									8.00	7.41	
<b>Käsling, Dagmar (GDR) (194)</b>	time						24.7	36.8	52.2	52.19	1 / 7									
reaction time	interval							27.5	27.5	# of strides								24.70	27.50	2.80
	velocity						8.10	7.27	7.66									8.10	7.27	
<b>Balogh-Sxomov, Györgyi (H)</b>	time						24.2	36.8	52.4	52.39	2 / 8									
reaction time	interval							28.2	28.2	# of strides								24.20	28.20	4.00
	velocity						8.26	7.09	7.64									8.26	7.09	

**1972 FRA vs. GDR (Colombes, FRA)**

FINAL		date	04-Jul-72	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Zehrt, Monika (GDR) (1952)</b>	time						23.8				51.0	51.0	1 / 1							
reaction time	interval										27.2	<b>=WR</b>	# of strides					23.80	27.20	3.40
	velocity						8.40				7.35	7.84	(51.08)					8.40	7.35	

**1970 Commonwealth Games (Edinburgh, GBR)**

FINAL		date	23-Jul-70	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Neufville, Marilyn (JAM) (195)</b>	time						23.8				51.0	51.0	1 / 1							
reaction time	interval										27.2	<b>WR</b>	# of strides					23.80	27.20	3.40
	velocity						8.40				7.35	7.84	(51.02)					8.40	7.35	

**1968 Olympic Games (Mexico City, MEX) (Altitude)**

FINAL		date	16-Oct-68	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Besson, Colette (FRA) (1946)</b>											<b>=OR</b>	52.0	5 / 1	(52.03)					# of strides	198.0
<b>Board, Lilian (GBR) (1948)</b>											52.1	1 / 2	(52.12)						# of strides	184.2
<b>Pechonkina, Natalya (URS) (1946)</b>											52.2	8 / 3	(52.25)						# of strides	206.2
<b>Simpson, Janet (GBR) (1944)</b>											52.5	7 / 4	(52.57)						# of strides	192.2
<b>Pentón, Aurelia (CUB) (1941)</b>											52.7	2 / 5	(52.75)						# of strides	192.7
<b>Scott, Jarvis (USA) (1947)</b>											52.8	4 / 6	(52.89)						# of strides	185.2
<b>Henning, Helga (FRG) (1937)</b>											53.0	6 / 8	(53.02)						# of strides	
<b>van der Hoeven, Hermina (NED) (1948)</b>																			# of strides	

**1968 USA Olympic Trials (Walnut, CA)**

FINAL		date	25-Aug-68	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Scott, Jarvis (USA) (1947)</b>	time						24.7				53.5	53.5	3 / 1							
reaction time	interval										28.8		# of strides					24.70	28.80	4.10
	velocity						8.10				6.94	7.48						8.10	6.94	
<b>Drinkwater, Lois (USA) (195)</b>	time						24.7				54.0	54.0	8 / 2							
reaction time	interval										29.3		# of strides					24.70	29.30	4.60
	velocity						8.10				6.83	7.41						8.10	6.83	
<b>Stroy, Esther (USA) (1953)</b>	time						25.2				54.3	54.3	6 / 3							
reaction time	interval										29.1		# of strides					25.20	29.10	3.90
	velocity						7.94				6.87	7.37						7.94	6.87	
<b>Shafer, Nancy (USA)</b>											54.8		1 / 4							
<b>Manning, Madeline (USA) (1948)</b>											55.1		2 / 5							
<b>Burnett, Jane (USA)</b>											55.2		5 / 6							
<b>Hull, Terry (USA)</b>											55.4		7 / 7							
<b>Fitzgerald, Gale (USA) (1951)</b>											55.9		4 / 8							



## 1964 Olympic Games (Tokyo, JPN)

## FINAL

date 17-Oct-64

Müller (1965) - die leichtathletik-wettkämpfe der XVIII olympischen sommerspielen Tokio 1964 - 400m lauf

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
<b>Cuthbert, Betty (AUS) (1938)</b>	time			24.3				52.0	52.0	2 / 1							
reaction time	interval							27.7	OR	# of strides					24.30	27.70	3.40
	velocity			8.23				7.22	7.69						8.23	7.22	
<b>Packer, Ann (GBR) (1942)</b>	time			24.6				52.2	52.2	6 / 2							
reaction time	interval							27.6	(52.20)	# of strides					24.60	27.60	3.00
	velocity			8.13				7.25	7.66						8.13	7.25	
<b>Amoore, Judy (AUS) (1940)</b>	time			24.2				53.4	53.4	3 / 3							
reaction time	interval							29.2		# of strides					24.20	29.20	5.00
	velocity			8.26				6.85	7.49						8.26	6.85	
<b>Munkácsi, Antónia (HUN) (1924)</b>	time			24.8				54.4	54.4	1 / 4							
reaction time	interval							29.6		# of strides					24.80	29.60	4.80
	velocity			8.06				6.76	7.35						8.06	6.76	
<b>Itkina, Mariya (URS) (1932)</b>	time			24.6				54.6	54.6	5 / 5							
reaction time	interval							30.0		# of strides					24.60	30.00	5.40
	velocity			8.13				6.67	7.33						8.13	6.67	
<b>van der Zwaard, Tilly (NED) (1920)</b>	time			25.8				55.2	55.2	4 / 6							
reaction time	interval							29.4		# of strides					25.80	29.40	3.60
	velocity			7.75				6.80	7.25						7.75	6.80	
<b>Schmidt, Gertrud (EUA/GDR) (1928)</b>	time			25.8				55.4	55.4	7 / 7							
reaction time	interval							29.6		# of strides					25.80	29.60	3.80
	velocity			7.75				6.76	7.22						7.75	6.76	
<b>Lebret, Évelyne (FRA) (1939)</b>	time			25.3				55.5	55.5	8 / 8							
reaction time	interval							30.2		# of strides					25.30	30.20	4.90
	velocity			7.91				6.62	7.21						7.91	6.62	