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- 27-Apr **2024 Yangtze River Delta Athletics Diamond Gala (Suzhou, CHN)**
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 110mH mF Henson, T. (2024) Athlete First: 2024 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 20-Apr **2024 Xiamen Diamond League (Xiamen, CHN)**
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 110mH mF Omega Timing (2024). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/000204040102090101FFFFFFFFFFFF6D.pdf>
- 29-Mar **2024 Chinese Indoor National Championships (Tianjin, CHN)**
 60m mF, mSF, mH, wH Shandong Athletics Sport Science (2024)
- 12-Mar **2024 Chinese Indoor Grand Prix III (Jinan, CHN)**
 60m mF, mH, wF, wH Shandong Athletics Sport Science (2024)
- 27-Feb **2024 Chinese Indoor Grand Prix I (Chengdu, CHN)**
 60m mAF, mBF, wAF Shandong Athletics Sport Science (2024)
 60H mH, wH Shandong Athletics Sport Science (2024)
- 15-Oct **2023 Japanese National Sports Festival (Kagoshima, JPN) (300m)**
 300m mF, wF, wU20F Yamanaka, R. (2023). Analysis of men's and women's 400m and 300m runs in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 78-81. (in Japanese)
- 3-Oct **2023 Asian Games (Hangzhou, CHN)**
 400mH wF Shandong Athletics Sport Science (2023)
- 16-Sep **2023 Prefontaine Classic (Eugene, OR)**
 100m mF, wF Omega Timing (2023). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/000203100102070101FFFFFFFFFFFF4D.pdf>
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<https://www.omegatiming.com/File/0002031001010C0101FFFFFFFFFFFF4D.pdf>
- 8-Sep **2023 Memorial van Damme (Brussels, BEL)**
 100m mU18, wF, wU18 Omega Timing (2023). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/0002030F0102030101FFFFFFFFFFFF4D.pdf>
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- 400m mF, mBF, wF, wBF Omega Timing (2023). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/0002030F01020E0101FFFFFFFFFFFF4D.pdf>
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- 400mH wF Omega Timing (2023). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/0002030F0101100101FFFFFFFFFFFF4D.pdf>
- 2-Sep **2023 Xiamen Diamond League (Xiamen, CHN)**
- 100m mF, mNat, wNat Omega Timing (2023). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/000203110102080101FFFFFFFFFFFF4D.pdf>
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- 400m mF, wF Omega Timing (2023). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/000203110102070101FFFFFFFFFFFF4D.pdf>
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- 100mH wNat Omega Timing (2023). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/000203110101080101FFFFFFFFFFFF4D.pdf>
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- 400mH wF Omega Timing (2023). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/0002031101010C0101FFFFFFFFFFFF4D.pdf>
- 31-Aug **2023 Weltklasse (Zürich, SUI)**
- 100m wF, wHA, wHB Omega Timing (2023). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/0002030D01010A0101FFFFFFFFFFFF4D.pdf>
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- 20-Aug **2023 World Athletics Championships (Budapest, HUN)**
- 100m mDec Matsubayashi, T. (2023). Performance analysis of decathlon athletes in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 158. (in Japanese)
- 200m mF, mSF, mH, wF, SF, wH, wHep Seiko Timing (2023). World Championship race analysis. Retrieved from <https://media.aws.iaaf.org/competitiondocuments/pdf/7138987/AT-200-M-f--1--.RS5.pdf>
<https://media.aws.iaaf.org/competitiondocuments/pdf/7138987/AT-200-W-f--1--.RS5.pdf>
- mH1, mH4, mH5, mSF1, mSF2, mSF3, wH6 Takahashi, K. (2023). 200m running performance at the 2023 Japanese National Championships and the World Championships. *Bulletin of Studies in Athletics of JAAF*, 19, p 73-74. (in Japanese)
- 400m mF, mSF, mH, mDec, wF, wSF, wH Seiko Timing (2023). World Championship race analysis. Retrieved from <https://media.aws.iaaf.org/competitiondocuments/pdf/7138987/AT-400-M-f--1--.RS5.pdf>
<https://media.aws.iaaf.org/competitiondocuments/pdf/7138987/AT-400-W-f--1--.RS5.pdf>
- mF, mSF, mH1, mH4, mH5 Yamanaka, R. (2023). Analysis of men's and women's 400m and 300m runs in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 78-81. (in Japanese)
- mDec Matsubayashi, T. (2023). Performance analysis of decathlon athletes in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 160. (in Japanese)
- 100mH wF, wH Kishima, K. (2023). Race analysis of top domestic and overseas women's 100m hurdles in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 92-99. (in Japanese)
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- 110mH mF, mSF, mH Shibayama, K. (2023). Race analysis of men's 110m hurdles in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 103-109. (in Japanese)
- mSF, mH Henson, T. (2023) *Athlete First: 2023 year end hurdle report*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- mDec Matsubayashi, T. (2023). Performance analysis of decathlon athletes in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 161. (in Japanese)
- 400mH mF, mSF, mH, wF, wSF, wH Henson, T. (2023) *Athlete First: 2023 year end hurdle report*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 2-Aug **2023 Japanese National High School Championships (Sapporo, JPN)**

	100m mF, wF	Takashima, K., Hirokawa, R., Wataya, T., Shinoda, Y., Takumi, S., & Yamada, S. (2023) - 5th national high school sports festival - biomechanics data. p. 2, 33. (in Japanese)
	200m mF, wF	Takashima, K., Hirokawa, R., Wataya, T., Shinoda, Y., Takumi, S., & Yamada, S. (2023) - 5th national high school sports festival - biomechanics data. p. 4, 35. (in Japanese)
	400m mF, wF	Takashima, K., Hirokawa, R., Wataya, T., Shinoda, Y., Takumi, S., & Yamada, S. (2023) - 5th national high school sports festival - biomechanics data. p. 6, 37. (in Japanese)
	100mH wF	Takashima, K., Hirokawa, R., Wataya, T., Shinoda, Y., Takumi, S., & Yamada, S. (2023) - 5th national high school sports festival - biomechanics data. p. 47. (in Japanese)
	110mH mF	Takashima, K., Hirokawa, R., Wataya, T., Shinoda, Y., Takumi, S., & Yamada, S. (2023) - 5th national high school sports festival - biomechanics data. p. 16. (in Japanese)
	400mH mF, wF	Takashima, K., Hirokawa, R., Wataya, T., Shinoda, Y., Takumi, S., & Yamada, S. (2023) - 5th national high school sports festival - biomechanics data. p. 18, 49. (in Japanese)
23-Jul	2023 London Athletics Meet (London, GBR)	
	100m wF	Omega Timing (2023). Diamond League race analysis. Retrieved from https://www.omegatiming.com/File/0002030B0102090101FFFFFFFFFFFF4D.pdf
	200m mF	Omega Timing (2023). Diamond League race analysis. Retrieved from https://www.omegatiming.com/File/0002030C01020E0101FFFFFFFFFFFF4D.pdf
	400m mF	Omega Timing (2023). Diamond League race analysis. Retrieved from https://www.omegatiming.com/File/0002030C01020D0101FFFFFFFFFFFF4D.pdf
	110mH mF	Omega Timing (2023). Diamond League race analysis. Retrieved from https://www.omegatiming.com/File/0002030C01020C0101FFFFFFFFFFFF4D.pdf
	400mH wF	Omega Timing (2023). Diamond League race analysis. Retrieved from https://www.omegatiming.com/File/0002030C0101070101FFFFFFFFFFFF4D.pdf
21-Jul	2023 Herculis Meeting International d'Athlétisme (Monaco, MON)	
	100m mF	Omega Timing (2023). Diamond League race analysis. Retrieved from https://www.omegatiming.com/File/0002030B0102090101FFFFFFFFFFFF4D.pdf
	200m wF	Omega Timing (2023). Diamond League race analysis. Retrieved from https://www.omegatiming.com/File/0002030B0101060101FFFFFFFFFFFF4D.pdf
	400m wF	Omega Timing (2023). Diamond League race analysis. Retrieved from https://www.omegatiming.com/File/0002030B0101030101FFFFFFFFFFFF4D.pdf
	100mH wF	Omega Timing (2023). Diamond League race analysis. Retrieved from https://www.omegatiming.com/File/0002030B0101050101FFFFFFFFFFFF4D.pdf
	400mH mF	Omega Timing (2023). Diamond League race analysis. Retrieved from https://www.omegatiming.com/File/0002030B0102040101FFFFFFFFFFFF4D.pdf
21-Jul	2023 Chinese National Championships (Quzhou, CHN)	
	100m mF, mSF, mH	Shandong Athletics Sport Science (2023)
	200m mSF, mH	Shandong Athletics Sport Science (2023)
	400m mF, mSF, mH, wF	Shandong Athletics Sport Science (2023)
16-Jul	2023 Kamila Skolimowska Memorial (Silesia, POL)	
	100m mF, wF	Omega Timing (2023). Diamond League race analysis. Retrieved from https://www.omegatiming.com/File/0002030A0102090101FFFFFFFFFFFF4D.pdf
	400m mF	Omega Timing (2023). Diamond League race analysis. Retrieved from https://www.omegatiming.com/File/0002030A01010B0101FFFFFFFFFFFF4D.pdf
	100mH wF	Omega Timing (2023). Diamond League race analysis. Retrieved from https://www.omegatiming.com/File/0002030A0101080101FFFFFFFFFFFF4D.pdf
	110mH mF, mH1, mH2	Omega Timing (2023). Diamond League race analysis. Retrieved from https://www.omegatiming.com/File/0002030A0102040201FFFFFFFFFFFF4D.pdf https://www.omegatiming.com/File/0002030A0102040101FFFFFFFFFFFF4D.pdf https://www.omegatiming.com/File/0002030A0102040102FFFFFFFFFFFF4D.pdf
2-Jul	2023 USATF National Championships (Eugene, OR)	
	100m	
	200m	
	400m	
	100mH wF	Henson, T. (2023) Athlete First: 2023 year end hurdle report. Retrieved from http://www.athetefirst.org (TV Analysis)
	110mH mF	Henson, T. (2023) Athlete First: 2023 year end hurdle report. Retrieved from http://www.athetefirst.org (TV Analysis)
	400mH mF, wF	Henson, T. (2023) Athlete First: 2023 year end hurdle report. Retrieved from http://www.athetefirst.org (TV Analysis)
2-Jul	2023 Bauhaus Galan (Stockholm, SWE)	
	100m mF, mNatF	Omega Timing (2023). Diamond League race analysis. Retrieved from https://www.omegatiming.com/File/000203090102080101FFFFFFFFFFFF4D.pdf https://www.omegatiming.com/File/000203090102010101FFFFFFFFFFFF4D.pdf
	200m wF	Omega Timing (2023). Diamond League race analysis. Retrieved from https://www.omegatiming.com/File/0002030901010B0101FFFFFFFFFFFF4D.pdf
	400m mF, mNatF	Omega Timing (2023). Diamond League race analysis. Retrieved from https://www.omegatiming.com/File/000203090102070101FFFFFFFFFFFF4D.pdf https://www.omegatiming.com/File/000203090102020101FFFFFFFFFFFF4D.pdf
	100mH wF, wNatF	Omega Timing (2023). Diamond League race analysis. Retrieved from https://www.omegatiming.com/File/0002030901010A0101FFFFFFFFFFFF4D.pdf https://www.omegatiming.com/File/000203090101030101FFFFFFFFFFFF4D.pdf

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<https://www.omegatiming.com/File/000203090101040101FFFFFFFFFFFF4D.pdf>
- 30-Jun **2023 Athletissima (Lausanne, SU1)**
100m mB, wF Omega Timing (2023). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/000203080102030101FFFFFFFFFFFF4D.pdf>
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200m mF, wF Omega Timing (2023). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/0002030801020B0101FFFFFFFFFFFF4D.pdf>
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400mH wF Omega Timing (2023). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/0002030801010D0101FFFFFFFFFFFF4D.pdf>
- 27-Jun **2023 Chinese World Championship & Asian Games Trials (Shenyang, CHN)**
100m mF, mH, wF, wH Shandong Athletics Sport Science (2023)
200m mF, mH, wF, wH Shandong Athletics Sport Science (2023)
400m mF, mH Shandong Athletics Sport Science (2023)
400mH wF, wH Shandong Athletics Sport Science (2023)
- 25-Jun **2023 Fuse Sprint (Tottori, JPN)**
110mH mF Shibayama, K. (2023). Race analysis of men's 110m hurdles in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 103-109. (in Japanese)
- 15-Jun **2023 Bislett Games (Oslo, NOR)**
200m mF Omega Timing (2023). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/0002030701010B0101FFFFFFFFFFFF4D.pdf>
400m mNatF, wNatF Omega Timing (2023). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/000203070101030101FFFFFFFFFFFF4D.pdf>
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400mH mF, wF Omega Timing (2023). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/0002030701010D0101FFFFFFFFFFFF4D.pdf>
<https://www.omegatiming.com/File/000203070102090101FFFFFFFFFFFF4D.pdf>
- 10-Jun **2023 Japanese Multi-Event National Championships (Akita, JPN)**
100m mDec Matsubayashi, T. (2023). Performance analysis of decathlon athletes in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 158. (in Japanese)
200m wHep Matsubayashi, T. (2023). Performance analysis of heptathlon athletes in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 166. (in Japanese)
400m mDec Matsubayashi, T. (2023). Performance analysis of decathlon athletes in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 160. (in Japanese)
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110mH mDec Matsubayashi, T. (2023). Performance analysis of decathlon athletes in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 161. (in Japanese)
- 9-Jun **2023 Meeting de Paris (Paris, FRA)**
100m mF Omega Timing (2023). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/0002030601010A0101FFFFFFFFFFFF4D.pdf>
200m wF Omega Timing (2023). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/000203060102110101FFFFFFFFFFFF4D.pdf>
400m wF Omega Timing (2023). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/000203060102100101FFFFFFFFFFFF4D.pdf>
110mH mF, mH1, mH2 Omega Timing (2023). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/000203060101050201FFFFFFFFFFFF4D.pdf>
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400mH mF Omega Timing (2023). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/000203060101080101FFFFFFFFFFFF4D.pdf>
- 9-Jun **2023 Chinese National Grand Prix 5 (Huangshi, CHN)**
100m mF, mSF, mH, wSF, wH Shandong Athletics Sport Science (2023)
200m mH Shandong Athletics Sport Science (2023)
400m mH Shandong Athletics Sport Science (2023)
- 4-Jun **2023 FBK Games (Hengelo, NED)**
100m mF, mNatH1, wF Omega Timing (2023). Continental Tour race analysis. Retrieved from <https://www.omegatiming.com/File/0002030101020E0101FFFFFFFFFFFF4D.pdf>
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- 100mH wF Omega Timing (2023). Continental Tour race analysis. Retrieved from <https://www.omegatiming.com/File/0002030101010A0101FFFFFFFFFFFF4D.pdf>
- 110mH mF Omega Timing (2023). Continental Tour race analysis. Retrieved from <https://www.omegatiming.com/File/0002030101020B0101FFFFFFFFFFFF4D.pdf>
- 400mH mF Omega Timing (2023). Continental Tour race analysis. Retrieved from <https://www.omegatiming.com/File/000203010102090101FFFFFFFFFFFF4D.pdf>
- 4-Jun **2023 Japanese National Championships (Osaka, JPN)**
- 200m mF, wF Takahashi, K. (2023). 200m running performance at the 2023 Japanese National Championships and the World Championships. *Bulletin of Studies in Athletics of JAAF*, 19, p 73-74. (in Japanese)
- 400m mF, mH, wF, wH Yamanaka, R. (2023). Analysis of men's and women's 400m and 300m runs in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 78-81. (in Japanese)
- 100mH wF Kishima, K. (2023). Race analysis of top domestic and overseas women's 100m hurdles in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 92-99. (in Japanese)
- 110mH mF Shibayama, K. (2023). Race analysis of men's 110m hurdles in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 103-109. (in Japanese)
- 400mH mF, wF Sugimoto, K. (2023). Race analysis of men's and women's 400m hurdles in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 115-122. (in Japanese)
- 4-Jun **2023 Japanese U20 National Championships (Osaka, JPN)**
- 200m mF, wF Takahashi, K. (2023). 200m running performance at the 2023 Japanese National Championships and the World Championships. *Bulletin of Studies in Athletics of JAAF*, 19, p 73-74. (in Japanese)
- 100mH wF Kishima, K. (2023). Race analysis of top domestic and overseas women's 100m hurdles in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 92-99. (in Japanese)
- 400mH mF, wF Sugimoto, K. (2023). Race analysis of men's and women's 400m hurdles in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 115-122. (in Japanese)
- 2-Jun **2023 Golden Gala Pietro Mennea (Firenze, ITA)**
- 100m mF, wF Omega Timing (2023). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/000203050102090101FFFFFFFFFFFF4D.pdf>
<https://www.omegatiming.com/File/000203050101080101FFFFFFFFFFFF4D.pdf>
- 200m mF Omega Timing (2023). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/000203050102050101FFFFFFFFFFFF4D.pdf>
- 400m wF Omega Timing (2023). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/000203050101090101FFFFFFFFFFFF4D.pdf>
- 110mH mF Omega Timing (2023). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/000203050102070101FFFFFFFFFFFF4D.pdf>
- 400mH wF Omega Timing (2023). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/000203050101050101FFFFFFFFFFFF4D.pdf>
- 2-Jun **2023 Chinese National Grand Prix 4 (Chongqing, CHN)**
- 100m mF, mSF, mH, wF, wSF, wH Shandong Athletics Sport Science (2023)
- 200m mF, mH, wF Shandong Athletics Sport Science (2023)
- 400m mF, mH Shandong Athletics Sport Science (2023)
- 100mH wF Shandong Athletics Sport Science (2023)
- 400mH wF Shandong Athletics Sport Science (2023)
- 28-May **2023 Meeting International Mohammed VI d'Athlétisme (Rabat, MAR)**
- 100m mF Omega Timing (2023). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/0002030401020A0101FFFFFFFFFFFF4D.pdf>
- 200m mNatF, wF, wNatF Omega Timing (2023). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/000203040102010101FFFFFFFFFFFF4D.pdf>
<https://www.omegatiming.com/File/000203040101090101FFFFFFFFFFFF4D.pdf>
<https://www.omegatiming.com/File/000203040101010101FFFFFFFFFFFF4D.pdf>
- 400m mF, mNatF Omega Timing (2023). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/000203040102080101FFFFFFFFFFFF4D.pdf>
<https://www.omegatiming.com/File/000203040102040101FFFFFFFFFFFF4D.pdf>
- 110mH mF Omega Timing (2023). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/000203040102070101FFFFFFFFFFFF4D.pdf>
- 400mH wF Omega Timing (2023). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/000203040101050101FFFFFFFFFFFF4D.pdf>
- 27-May **2023 Shimane High School Championships (Izumo, JPN)**
- 100m mF, wF Shimizu, Y. (2023). Shimane high school championships 2023, Biomechanics data analysis. p. 2 & 4. (in Japanese). Retrieved from https://www.shimariku.jp/_assets/page_files/files/000/049/944/2973a6037bbd15e13df3c75f798680340ee4c576/最終報告.pdf?1685401305
- 200m mF, wF Shimizu, Y. (2023). Shimane high school championships 2023, Biomechanics data analysis. p. 6 & 8. (in Japanese). Retrieved from https://www.shimariku.jp/_assets/page_files/files/000/049/944/2973a6037bbd15e13df3c75f798680340ee4c576/最終報告.pdf?1685401305

- 400m mF, wF Shimizu, Y. (2023). Shimane high school championships 2023, Biomechanics data analysis. p. 10 & 12. (in Japanese). Retrieved from https://www.shimariiku.jp/_assets/page_files/files/000/049/944/2973a6037bbd15e13df3c75f798680340ee4c576/最終報告.pdf?1685401305
- 100mH wF Shimizu, Y. (2023). Shimane high school championships 2023, Biomechanics data analysis. p. 20. (in Japanese). Retrieved from https://www.shimariiku.jp/_assets/page_files/files/000/049/944/2973a6037bbd15e13df3c75f798680340ee4c576/最終報告.pdf?1685401305
- 110mH mF Shimizu, Y. (2023). Shimane high school championships 2023, Biomechanics data analysis. p. 18. (in Japanese). Retrieved from https://www.shimariiku.jp/_assets/page_files/files/000/049/944/2973a6037bbd15e13df3c75f798680340ee4c576/最終報告.pdf?1685401305
- 400mH mF, wF Shimizu, Y. (2023). Shimane high school championships 2023, Biomechanics data analysis. p. 22 & 24. (in Japanese). Retrieved from https://www.shimariiku.jp/_assets/page_files/files/000/049/944/2973a6037bbd15e13df3c75f798680340ee4c576/最終報告.pdf?1685401305
- 26-May **2023 Chinese National Grand Prix 3 (Taizhou, CHN)**
- 100m mSF, mH, wH Shandong Athletics Sport Science (2023)
- 200m mF, mH, wH Shandong Athletics Sport Science (2023)
- 400m mF, mH Shandong Athletics Sport Science (2023)
- 100mH wF Shandong Athletics Sport Science (2023)
- 21-May **2023 Seiko Golden Grand Prix (Yokohama, JPN)**
- 400m mF Yamanaka, R. (2023). Analysis of men's and women's 400m and 300m runs in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 78-81. (in Japanese)
- 100mH wF Kishima, K. (2023). Race analysis of top domestic and overseas women's 100m hurdles in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 92-99. (in Japanese)
- 110mH mF Shibayama, K. (2023). Race analysis of men's 110m hurdles in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 103-109. (in Japanese)
- 400mH mF Sugimoto, K. (2023). Race analysis of men's and women's 400m hurdles in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 115-122. (in Japanese)
- 7-May **2023 Michitaka Kinami Memorial (Osaka, JPN)**
- 100m mDec Matsubayashi, T. (2023). Performance analysis of decathlon athletes in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 158. (in Japanese)
- 200m wHep Matsubayashi, T. (2023). Performance analysis of heptathlon athletes in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 166. (in Japanese)
- 400m mDec Matsubayashi, T. (2023). Performance analysis of decathlon athletes in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 160. (in Japanese)
- 100mH wF Kishima, K. (2023). Race analysis of top domestic and overseas women's 100m hurdles in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 92-99. (in Japanese)
- wHep Matsubayashi, T. (2023). Performance analysis of heptathlon athletes in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 165. (in Japanese)
- 110mH mF Shibayama, K. (2023). Race analysis of men's 110m hurdles in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 103-109. (in Japanese)
- mDec Matsubayashi, T. (2023). Performance analysis of decathlon athletes in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 161. (in Japanese)
- 400mH mF, wF Sugimoto, K. (2023). Race analysis of men's and women's 400m hurdles in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 115-122. (in Japanese)
- 5-May **2023 Doha Diamond League (Doha, QAT)**
- 200m mF Omega Timing (2023). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/0002030301020D0101FFFFFFFFFFFF4D.pdf>
- 400m mF, wF Omega Timing (2023). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/000203030102070101FFFFFFFFFFFF4D.pdf>
- 100H wF Henson, T. (2023) Athlete First: 2023 year end hurdle report. Retrieved from <http://www.athetefirst.org/TV/Analysis>
- 400H mF Omega Timing (2023). Diamond League race analysis. Retrieved from https://doha.diamondleague.com/live/libs/jetuniversalcomponents/modules/pdfViewer/viewer.html?file=https://livecache.sportresult.com/node/binaryData/ATH_PROD/DOHA2023/PDF_ATHM400MHURDDIAMOND---FNL-000100--_C78.PDF?h=kCSgWSlqdbTqezKCaQ4ypcRIQWY=
- 3-May **2023 Shizuoka International Meeting (Fukuroi, JPN)**
- 400H mAF, mBF, mCF, wAF, wBF, wCF Sugimoto, K. (2023). Race analysis of men's and women's 400m hurdles in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 115-122. (in Japanese)
- 29-Apr **2023 Mikio Oda Memorial (Hiroshima, JPN)**
- 100mH wF Kishima, K. (2023). Race analysis of top domestic and overseas women's 100m hurdles in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 92-99. (in Japanese)
- 110mH mF Shibayama, K. (2023). Race analysis of men's 110m hurdles in the 2023 season. *Bulletin of Studies in Athletics of JAAF*, 19, p 103-109. (in Japanese)
- 26-Apr **2023 Chinese National Grand Prix 1 (Rizhao, CHN)**
- 100m mF, mSF, mH, wH Shandong Athletics Sport Science (2023)
- 200m mF, mH, wH Shandong Athletics Sport Science (2023)
- 400m mF, mH Shandong Athletics Sport Science (2023)

16-Mar	60mH wF, wH	Shandong Athletics Sport Science (2023)
	2023 Chinese Indoor National Championships (Tianjin, CHN)	
	60m mH, wSF, wH	Shandong Athletics Sport Science (2023)
28-Feb	2023 Chinese Indoor Grand Prix II (Chengdu, CHN)	
	60m mF, mH, wF, wH	Shandong Athletics Sport Science (2023)
	60mH wF	Shandong Athletics Sport Science (2023)
25-Feb	2023 Chinese Indoor Grand Prix I (Chengdu, CHN)	
	60m mF, mH, wH	Shandong Athletics Sport Science (2023)
7-Sep	2022 Weltklasse (Zürich, SUI)	
	100m mF, wF	Omega Timing (2022). Diamond League race analysis. Retrieved from https://www.omegatiming.com/File/000202000101100101FFFFFFFFFFFF4E.pdf https://www.omegatiming.com/File/000202000102140101FFFFFFFFFFFF4E.pdf
	200m mF, wF	Omega Timing (2022). Diamond League race analysis. Retrieved from https://www.omegatiming.com/File/000202000101130101FFFFFFFFFFFF4E.pdf https://www.omegatiming.com/File/000202000102170101FFFFFFFFFFFF4E.pdf
	400m mF, mFB, wF, wFB	Omega Timing (2022). Diamond League race analysis. Retrieved from https://www.omegatiming.com/File/000202000101090101FFFFFFFFFFFF4E.pdf https://www.omegatiming.com/File/000202000101080101FFFFFFFFFFFF4E.pdf https://www.omegatiming.com/File/0002020001020E0101FFFFFFFFFFFF4E.pdf https://www.omegatiming.com/File/0002020001020C0101FFFFFFFFFFFF4E.pdf
	100mH wF	Henson, T. (2022) Athlete First: 2022 year end hurdle report. Retrieved from http://www.athetefirst.org (TV Analysis)
	110mH mF	Henson, T. (2022) Athlete First: 2022 year end hurdle report. Retrieved from http://www.athetefirst.org (TV Analysis)
	400mH mF, wF	Henson, T. (2022) Athlete First: 2022 year end hurdle report. Retrieved from http://www.athetefirst.org (TV Analysis)
2-Sep	2022 Memorial van Damme (Brussels, BEL)	
	100m wF	Omega Timing (2022). Diamond League race analysis. Retrieved from https://www.omegatiming.com/File/0002021201020C0101FFFFFFFFFFFF4E.pdf
	200m mF	Omega Timing (2022). Diamond League race analysis. Retrieved from https://www.omegatiming.com/File/0002021201010C0101FFFFFFFFFFFF4E.pdf
	400m mF, wF, wB	Omega Timing (2022). Diamond League race analysis. Retrieved from https://www.omegatiming.com/File/0002021201010A0101FFFFFFFFFFFF4E.pdf https://www.omegatiming.com/File/0002021201020D0101FFFFFFFFFFFF4E.pdf https://www.omegatiming.com/File/000202120102090101FFFFFFFFFFFF4E.pdf
	100mH wF	Henson, T. (2022) Athlete First: 2022 year end hurdle report. Retrieved from http://www.athetefirst.org (TV Analysis)
	400mH mF	Henson, T. (2022) Athlete First: 2022 year end hurdle report. Retrieved from http://www.athetefirst.org (TV Analysis)
30-Aug	2022 Shandong Provincial Games (Rizhao, CHN)	
	100m mU20F, mU18F, mU20SF1, wU20F, wU18F, wU20SF1	Shandong Athletics Sport Science (2022)
	200m mU20F, mU18F, mU20SF, mU20H, wU20F, wU18F, wU20H	Shandong Athletics Sport Science (2022)
	400mH mU20F, mU18F, wU20F, wU18F	Shandong Athletics Sport Science (2022)
17-Aug	2022 European Athletics Championships (Munich, GER)	
	400m mF, mSF, mH, wF, wSF, wH	European Athletics (2022). European athletics championships race analysis. p. 26, 30-32, 36-39, 234, 238-240, 244-246. Retrieved from https://ec2022results.com/webrelease/resECM2022/pdf/ECM2022/ATH/ECM2022_ATH_B99_ATH------.pdf
	100mH wF	Henson, T. (2022) Athlete First: 2022 year end hurdle report. Retrieved from http://www.athetefirst.org (TV Analysis)
	110mH mF	Henson, T. (2022) Athlete First: 2022 year end hurdle report. Retrieved from http://www.athetefirst.org (TV Analysis)
	400mH mF, mSF, mH, wF, wSF, wH	European Athletics (2022). European athletics championships race analysis. p. 115, 119-121, 125-128, 315, 319-321, 325-327. Retrieved from https://ec2022results.com/webrelease/resECM2022/pdf/ECM2022/ATH/ECM2022_ATH_B99_ATH------.pdf
10-Aug	2022 Herculis Meeting International d'Athlétisme (Monaco, MON)	
	100m wF	Omega Timing (2022). Diamond League race analysis. Retrieved from https://www.omegatiming.com/File/000202100102040101FFFFFFFFFFFF4E.pdf
	200m mF	Omega Timing (2022). Diamond League race analysis. Retrieved from https://www.omegatiming.com/File/000202100101060101FFFFFFFFFFFF4E.pdf
	400m wF	Omega Timing (2022). Diamond League race analysis. Retrieved from https://www.omegatiming.com/File/000202100102080101FFFFFFFFFFFF4E.pdf
	110mH mF	Henson, T. (2022) Athlete First: 2022 year end hurdle report. Retrieved from http://www.athetefirst.org (TV Analysis)

- 400mH wF Henson, T. (2022) Athlete First: 2022 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 6-Aug **2022 Silesia Kamila Skolimowska Memorial (Chorzów, POL)**
 100m mF, wF Omega Timing (2022). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/0002020501010C0101FFFFFFFFFFFF4E.pdf>
<https://www.omegatiming.com/File/0002020501020E0101FFFFFFFFFFFF4E.pdf>
 200m wF Omega Timing (2022). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/0002020501020C0101FFFFFFFFFFFF4E.pdf>
 400m mF, wF, wB Omega Timing (2022). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/0002020501010E0101FFFFFFFFFFFF4E.pdf>
<https://www.omegatiming.com/File/0002020501020B0101FFFFFFFFFFFF4E.pdf>
<https://www.omegatiming.com/File/000202050102070101FFFFFFFFFFFF4E.pdf>
 100mH wF Henson, T. (2022) Athlete First: 2022 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
 400mH mF Henson, T. (2022) Athlete First: 2022 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 4-Aug **2022 Japanese High School National Championships (Fukui, JPN)**
 100m mF, wF Kishima, T., Fukuda, K., Onishi, K., & Hikaru, A. (2022). 75th high school championships: biomechanics data collection. p. 2, 27. (in Japanese)
 200m mF, wF Kishima, T., Fukuda, K., Onishi, K., & Hikaru, A. (2022). 75th high school championships: biomechanics data collection. p. 4, 29. (in Japanese)
 400m mF, wF Kishima, T., Fukuda, K., Onishi, K., & Hikaru, A. (2022). 75th high school championships: biomechanics data collection. p. 6, 31. (in Japanese)
 100mH wF Kishima, T., Fukuda, K., Onishi, K., & Hikaru, A. (2022). 75th high school championships: biomechanics data collection. p. 37. (in Japanese)
 110mH mF Kishima, T., Fukuda, K., Onishi, K., & Hikaru, A. (2022). 75th high school championships: biomechanics data collection. p. 12. (in Japanese)
 400mH mF, wF Kishima, T., Fukuda, K., Onishi, K., & Hikaru, A. (2022). 75th high school championships: biomechanics data collection. p. 14, 39. (in Japanese)
- 3-Aug **2022 Commonwealth Games (Birmingham, GBR)**
 100m mF, mSF, wF, wSF Longines Timing (2022) - Commonwealth Games race analysis. p. 3, 9-11, 184, 189-191. Retrieved from https://b2022-pdf.microplustimingservices.com/ATH/ResultBook/CG2022_ATH_v1.1.pdf
 200m mF, mSF, wF, wSF Longines Timing (2022) - Commonwealth Games race analysis. p. 44, 49-51, 211, 216-218. Retrieved from https://b2022-pdf.microplustimingservices.com/ATH/ResultBook/CG2022_ATH_v1.1.pdf
 400m mF, mSF, wF, wSF Longines Timing (2022) - Commonwealth Games race analysis. p. 66, 71-73, 231, 235-236. Retrieved from https://b2022-pdf.microplustimingservices.com/ATH/ResultBook/CG2022_ATH_v1.1.pdf
 100mH wF Henson, T. (2022) Athlete First: 2022 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
 h3 Henson, T. (2022) Athlete First: 2022 Tobi Amusan 100m hurdles world record season. Retrieved from <http://www.athetefirst.org> (TV Analysis)
 400mH wF Henson, T. (2022) Athlete First: 2022 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 18-Jul **2022 World Athletics Championships (Eugene, OR)**
 100m wF Zheng T. (2022). A study on the speed characteristics of the women's 100m race finalists at the 2022 Eugene world championships. *Bulletin of Sport Science and Technology*, 30. p. 55. (in Chinese)
 200m mF, mSF, mH, wF, wSF, wH, wHept Timing by Seiko (2022). World Athletics Championships race analysis. Retrieved from <https://media.aws.iaaf.org/competitiondocuments/pdf/7137279/AT-200-M-f-1--.RS5.pdf>
<https://media.aws.iaaf.org/competitiondocuments/pdf/7137279/AT-200-W-f-1--.RS5.pdf>
 400m mF, mSF, mH, mDec, wF, wSF, wH <https://media.aws.iaaf.org/competitiondocuments/pdf/7137279/AT-400-M-f-1--.RS5.pdf>
<https://media.aws.iaaf.org/competitiondocuments/pdf/7137279/AT-400-W-f-1--.RS5.pdf>
 100mH wF, wSF2 (aoki), wSF1 (amusan, fukube) Aoki, H. (2023). Domestic & foreign first-class women's 100m hurdles in the 2022 season. *Bulletin of Studies in Athletics of JAAF*, 18, p 158-159. (in Japanese)
 wF, wSF, wH Henson, T. (2022) Athlete First: 2022 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
 110mH mF, mSF3, mSF2 (izumiya), mSF1 (ishikawa), mH5, mH4, mH3 Henson, T. (2022) Athlete First: 2022 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
 mF, mSF, mH Henson, T. (2022) Athlete First: 2022 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
 400mH mF, mSF3 (kurokawa), mH2, mH1 Wanami, S. (2023). Race analysis of the men's and women's 400m hurdles in the 2022 season. *Bulletin of Studies in Athletics of JAAF*, 18, p 167-168. (in Japanese)
 mSF, mH, wF, wSF, wH Henson, T. (2022) Athlete First: 2022 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 15-Jul **2022 Chinese National Grand Prix (Huangshi, CHN)**
 100mH wF Gong X. (2023). Research on the technical characteristics of outstanding women's 100m hurdlers in China. (Dissertation) Jilin Sport University. p. 39, 47. (in Chinese)
- 14-Jul **2022 Shandong Athletics Games (Rizhao, CHN)**

- 100m mF, mH, wF Shandong Athletics Sport Science (2022)
- 30-Jun **2022 Bauhaus Galan (Stockholm, SWE)**
- 100m mF Omega Timing (2022). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/0002020D0102080101FFFFFFFFFFFF4E.pdf>
- 200m wF Omega Timing (2022). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/0002020D01010E0101FFFFFFFFFFFF4E.pdf>
- 400m wF Omega Timing (2022). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/0002020D0101080101FFFFFFFFFFFF4E.pdf>
- 100mH wF Henson, T. (2022) Athlete First: 2022 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH mF, wF Henson, T. (2022) Athlete First: 2022 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 23-Jun **2022 USATF National Championships (Eugene, OR)**
- 100m
- 200m
- 400m
- 100mH wF Henson, T. (2022) Athlete First: 2022 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 110mH mF Henson, T. (2022) Athlete First: 2022 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- mSF USATF (2022) - Results powered by Karmarush.com
- 400mH mF, wF, wSF Henson, T. (2022) Athlete First: 2022 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- wSF, wH1 USATF (2022) - Results powered by Karmarush.com
- wH1 Henson, T. (2022) Athlete First: 2022 Sydney McLaughlin 400m hurdles world record season. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 18-Jun **2022 Meeting de Paris (Paris, FRA)**
- 100m mF, wF Omega Timing (2022). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/0002020C0102050101FFFFFFFFFFFF4E.pdf>
- 200m mF Omega Timing (2022). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/0002020C01010C0101FFFFFFFFFFFF4E.pdf>
- 400m mF, wF Omega Timing (2022). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/0002020C0102080101FFFFFFFFFFFF4E.pdf>
- 100mH wF Henson, T. (2022) Athlete First: 2022 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 110mH mF Henson, T. (2022) Athlete First: 2022 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 16-Jun **2022 Bislett Games (Oslo, NOR)**
- 100m mF Omega Timing (2022). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/0002020B01020A0101FFFFFFFFFFFF4E.pdf>
- 400m mF Omega Timing (2022). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/0002020B0102080101FFFFFFFFFFFF4E.pdf>
- 110mH mF Henson, T. (2022) Athlete First: 2022 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH mF, wF Henson, T. (2022) Athlete First: 2022 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 12-Jun **2022 Japanese National Championships (Osaka, JPN)**
- 100mH wF Aoki, H. (2023). Domestic & foreign first-class women's 100m hurdles in the 2022 season. *Bulletin of Studies in Athletics of JAAF*, 18, p 157. (in Japanese)
- 110mH mF Shibayama, K. (2023). Race analysis of the men's 110m hurdles in the 2022 season. *Bulletin of Studies in Athletics of JAAF*, 18, p 143. (in Japanese)
- 400mH mF, wF Wanami, S. (2023). Race analysis of the men's and women's 400m hurdles in the 2022 season. *Bulletin of Studies in Athletics of JAAF*, 18, p 165 & 171. (in Japanese)
- 12-Jun **2022 Japanese U20 National Championships (Osaka, JPN)**
- 110mH mF Shibayama, K. (2023). Race analysis of the men's 110m hurdles in the 2022 season. *Bulletin of Studies in Athletics of JAAF*, 18, p 144. (in Japanese)
- 400mH mF, wF Wanami, S. (2023). Race analysis of the men's and women's 400m hurdles in the 2022 season. *Bulletin of Studies in Athletics of JAAF*, 18, p 166 & 172. (in Japanese)
- 9-Jun **2022 Golden Gala Pietro Mennea (Rome, ITA)**
- 100m mF Omega Timing (2022). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/0002020A01010B0101FFFFFFFFFFFF4D.pdf>
- 200m mF, wF Omega Timing (2022). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/0002020A0101080101FFFFFFFFFFFF4D.pdf>
- 400m mF Omega Timing (2022). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/0002020A0102080101FFFFFFFFFFFF4D.pdf>
- 100mH wF Henson, T. (2022) Athlete First: 2022 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH wF Henson, T. (2022) Athlete First: 2022 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)

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- 5-Jun **2022 Meeting International Mohammed VI d'Athlétisme (Rabat, MAR)**
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- 6-May **2022 Japanese Multi-Event National Championships (Akita, JPN)**
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- 28-May **2022 Prefontaine Classic (Eugene, OR)**
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- 27-May **2022 Shimane High School Championships (Izumo, JPN)**
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- 21-May **2022 Müller Birmingham Diamond League (Birmingham, GBR)**
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- 400mH wF Henson, T. (2022) Athlete First: 2022 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 13-May **2022 Doha Diamond League (Doha, QAT)**
- 200m mF, wF Omega Timing (2022). Diamond League race analysis. Retrieved from <http://static.sportresult.com/sports/at/data/2022/doha/are0020040.pdf>
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- 400mH mF Henson, T. (2022) Athlete First: 2022 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 8-May **2022 Seiko Golden Grand Prix (Tokyo, JPN)**
- 100mH wF Aoki, H. (2023). Domestic & foreign first-class women's 100m hurdles in the 2022 season. *Bulletin of Studies in Athletics of JAAF*, 18, p 156. (in Japanese)
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- 1-May **2022 Michitaka Kinami Memorial (Osaka, JPN)**
- 100m mDecH1, mDecH2 Takefu, M. (2023). Performance analysis of decathlon athletes in the 2022 season. *Bulletin of Studies in Athletics of JAAF*, 18, p 196. (in Japanese)
- 200m wHept Takefu, M. (2023). Performance analysis of decathlon athletes in the 2022 season. *Bulletin of Studies in Athletics of JAAF*, 18, p 205. (in Japanese)
- 400m mDecH1, mDecH2 Takefu, M. (2023). Performance analysis of decathlon athletes in the 2022 season. *Bulletin of Studies in Athletics of JAAF*, 18, p 198. (in Japanese)
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- 29-Apr **2022 Mikio Oda Memorial (Hiroshima, JPN)**
- 100mH wF, wBF Aoki, H. (2023). Domestic & foreign first-class women's 100m hurdles in the 2022 season. *Bulletin of Studies in Athletics of JAAF*, 18, p 153-154. (in Japanese)
- 110mH mF, mBF Shibayama, K. (2023). Race analysis of the men's 110m hurdles in the 2022 season. *Bulletin of Studies in Athletics of JAAF*, 18, p 139-140. (in Japanese)
- 20-Mar **World Athletics Indoor Championships (Belgrade, SRB)**
- 60mH wF Henson, T. (2022) Athlete First: 2022 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 60mH mF, mSF2 Henson, T. (2022) Athlete First: Grant Holloway 2022 Men's 60m Hurdles World Indoor Record. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 19-Feb **2022 Müller Indoor Grand Prix (Birmingham, GBR)**
- 60mH mF Henson, T. (2022) Athlete First: Grant Holloway 2022 Men's 60m Hurdles World Indoor Record. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 17-Feb **2022 Meeting Hauts-de-France Pas-de-Calais (Liévin, FRA)**
- 60mH mF, mH2 Henson, T. (2022) Athlete First: Grant Holloway 2022 Men's 60m Hurdles World Indoor Record. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 6-Feb **2022 New Balance Indoor Grand Prix (Staten Island, NY)**
- 60mH mF Henson, T. (2022) Athlete First: Grant Holloway 2022 Men's 60m Hurdles World Indoor Record. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 23-Oct **2021 Japanese U18 & U16 National Championships (Matsuyama, JPN)**
- 150m mU16F, wU16F Takahasi, K. (2021). Race analysis of domestic 200m and U16 150m in the Tokyo Olympic season. *Bulletin of Studies in Athletics of JAAF*, 17, p 130. (in Japanese)
- 300m mU18F, wU18F Yamanaka, R. (2021). Race analysis of men's and women's 400m and 300m races in 2021 competition. *Bulletin of Studies in Athletics of JAAF*, 17, p 140. (in Japanese)
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- 25-Sep **2021 All Japan Corporate Championships (Osaka, JPN)**
- 400m mF @ohnishigundan (2021.09.25) Retrieved from <https://twitter.com/ohnishigundan/status/1441633743874117633> (in Japanese)

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- 22-Jul **2021 Chinese National Games (Xi'an, CHN)**
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- 14-Sep **2021 Boris Hanžeković Memorial (Zagreb, CRO)**
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- 12-Sep **2021 ISTAF (Berlin, GER)**
 400mH mF Henson, T. (2021) Athlete First: 2021 Karsten Warholm 400m Hurdles World Record Season Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 9-Sep **2021 Weltklasse (Zürich, SUI)**
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- 3-Sep **2021 Memorial van Damme (Brussels, BEL)**
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- 28-Aug **2021 Meeting de Paris (Paris, FRA)**
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- 26-Aug **2021 Athletissima (Lausanne, SUI)**
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- wF (200m) Omega Timing (2021). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/0002010F01020E0101FFFFFFFFFFFF4D.pdf>
- 8-Aug **2021 Prefontaine Classic (Eugene, OR)**
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- wF (200m) Omega Timing (2021). Diamond League race analysis. Retrieved from <https://www.omegatiming.com/File/0002010D01010A0101FFFFFFFFFFFF4D.pdf>
- 5-Aug **2020 Olympic Games (Tokyo, JPN)**
- 100m mF, mSF3, wF Vazel, P.J. (2021) Analyzing the olympic 100-meter sprints. Retrieved from <https://www.hmmrmedia.com/2021/10/tokyo-sprint-analysis/>
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- 400m mF Omega Timing (2022) - Tokyo 2020 - race analysis - men's 400m final
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- 100mH wF Henson, T. (2021) Athlete First: 2021 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
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- 400mH mF, wF Henson, T. (2021) Athlete First: 2021 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
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- 29-Jul **2021 Japanese High School National Championships (Fukui, JPN)**
- 100m mF, wF Shibayama, N., Kijima, K., Yamamoto, K., & Onishi, K. (2021). 74th high school championships: JAF scientific committee - biomechanics data collection. p. 2, 26. (in Japanese)
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- 14-Jul **2021 Chinese Student Games (Qingdao, CHN)**
- 100mH wF CAA Hurdle Development (2021): Final 2021 year end report (in Chinese)
- 400mH wF CAA Hurdle Development (2021): Final 2021 year end report (in Chinese)
- 13-Jul **2021 Müller British Grand Prix (Gateshead, GBR)**
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- 9-Jul **2021 Herculis Meeting International d'Athletisme (Monaco, MON)**
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- 9-Jul **2021 Flavour Hangzhou Athletics Meeting (Hangzhou, CHN)**

- 100mH wF (1) CAA Hurdle Development (2021): Final 2021 year end report (in Chinese)
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- 6-Jul **2021 István Gyulai Memorial (Székesfehérvár, HUN)**
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- 4-Jul **2021 Bauhaus Galan (Stockholm, SWE)**
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 mF (200m), wF (200m) Omega Timing (2020) Diamond League Race Analysis. Retrieved from <http://static.sportresult.com/sports/at/data/2021/stockholm/are0270040.pdf>
<http://static.sportresult.com/sports/at/data/2021/stockholm/are1270040.pdf>
- 1-Jul **2021 Bislett Games (Oslo, NOR)**
 100m mNatF Omega Timing (2021). Diamond League race analysis. Retrieved from <http://static.sportresult.com/sports/at/data/2021/oslo/are4010040.pdf>
 200m mF Omega Timing (2021). Diamond League race analysis. Retrieved from <http://static.sportresult.com/sports/at/data/2021/oslo/are0020040.pdf>
 400mH mF, wF Henson, T. (2021) Athlete First: 2021 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 30.Jun **2021 Irena Szewinska Memorial (Bydgoszcz, POL)**
 400m wF (mboma) Vazel, PJ (2021.07.01) Retrieved from <https://twitter.com/pjvazel/status/1410310278391140362?s=21>
- 27.Jun **2020 USA Olympic Trials (Eugene, OR)**
 200m wF (thomas) Vazel, PJ (2021.06.27) Retrieved from <https://twitter.com/pjvazel/status/1409396275791994886?s=21>
 100mH wF, wSF Henson, T. (2021) Athlete First: 2021 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
 110mH mF (holloway) Vazel, PJ (2021.06.27) Retrieved from <https://twitter.com/pjvazel/status/1409323602432999426?s=21>
 mF, mSF Henson, T. (2021) Athlete First: 2021 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
 400mH wF (1-4) Athlete Tracking (2021.06.28). Women's 400mH - Unofficial Split Times. Retrieved from <https://twitter.com/athletetracking/status/1409736538364260357?s=21>
 mF, mSF, wF, wSF Henson, T. (2021) Athlete First: 2021 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 26.Jun **2021 Jamaican National Championships (Kingston, JAM)**
 110mH mH1 Henson, T. (2021) Athlete First: 2021 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 26.Jun **2021 Japanese National Championships (Osaka, JPN)**
 200m mF, wF Takahasi, K. (2021). Race analysis of domestic 200m and U16 150m in the Tokyo Olympic season. Bulletin of Studies in Athletics of JAAF, 17, p 128. (in Japanese)
 400m mF, wF Yamanaka, R. (2021). Race analysis of men's and women's 400m and 300m races in 2021 competition. Bulletin of Studies in Athletics of JAAF, 17, p 135, 137. (in Japanese)
 100mH wF Onishi, K. (2021). Race analysis of the domestic first-class women's 100m hurdles in the 2021 season. Bulletin of Studies in Athletics of JAAF, 17, p 163. (in Japanese)
 110mH mF Shibayama, K. (2021). Race analysis of men's 110m hurdles in the 2021 season. Bulletin of Studies in Athletics of JAAF, 17, p 151. (in Japanese)
 400mH mF, wF Sugimoto, K. (2021). Race analysis of men's and women's 400m hurdles in the 2021 competition. Bulletin of Studies in Athletics of JAAF, 17, p 173, 181. (in Japanese)
 wH1 (yamamoto) Wanami, S. (2023). Race analysis of the men's and women's 400m hurdles in the 2022 season. Bulletin of Studies in Athletics of JAAF, 18, p 173. (in Japanese)
- 26.Jun **2021 Japanese U20 National Championships (Osaka, JPN)**
 200m mF, wF Takahasi, K. (2021). Race analysis of domestic 200m and U16 150m in the Tokyo Olympic season. Bulletin of Studies in Athletics of JAAF, 17, p 129. (in Japanese)
 400m mF, wF Yamanaka, R. (2021). Race analysis of men's and women's 400m and 300m races in 2021 competition. Bulletin of Studies in Athletics of JAAF, 17, p 136, 137. (in Japanese)
 100mH wF Onishi, K. (2021). Race analysis of the domestic first-class women's 100m hurdles in the 2021 season. Bulletin of Studies in Athletics of JAAF, 17, p 162. (in Japanese)
 400mH mF, wF Sugimoto, K. (2021). Race analysis of men's and women's 400m hurdles in the 2021 competition. Bulletin of Studies in Athletics of JAAF, 17, p 173, 181. (in Japanese)
- 25.Jun **2021 Chinese National Championships (Chongqing, CHN)**
 200m wF, wH CAA Hurdle Development (2021): Final 2021 year end report (in Chinese)
 100mH wF, wH, wHept CAA Hurdle Development (2021): Final 2021 year end report (in Chinese)
 110mH mF, mH, mDeca CAA Hurdle Development (2021): Final 2021 year end report (in Chinese)

- 12.Jun 400mH mF, mH, wF, wH CAA Hurdle Development (2021): Final 2021 year end report (in Chinese)
2020 Chinese Olympic Trials (Shaoxing, CHN)
 200m wF, wH CAA Hurdle Development (2021): Final 2021 year end report (in Chinese)
 100mH wF, wH CAA Hurdle Development (2021): Final 2021 year end report (in Chinese)
 110mH mF, mH CAA Hurdle Development (2021): Final 2021 year end report (in Chinese)
 400mH mF, wF CAA Hurdle Development (2021): Final 2021 year end report (in Chinese)
- 12.Jun **2021 Japanese Multi-Event National Championships (Nagano, JPN)**
 100mH wHept Matsubayashi, T. (2021). 100m hurdles race analysis of heptathletes in the 2021 season. *Bulletin of Studies in Athletics of JAAF*, 17, p 205. (in Japanese)
 110mH mDec Matsubayashi, T. (2021). 110m hurdling race analysis of decathlon athletes in the 2021 season. *Bulletin of Studies in Athletics of JAAF*, 17, p 208. (in Japanese)
- 11.Jun **2021 NCAA Championships (Eugene, OR)**
 400m wF (mu) Vazel, PJ (2021.06.13) Retrieved from <https://twitter.com/pjvazel/status/1403991035081023493?s=21>
 100mH wF, wSF2 Henson, T. (2021) Athlete First: 2021 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
 110mH mF Henson, T. (2021) Athlete First: 2021 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
 400mH mF, wF Henson, T. (2021) Athlete First: 2021 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 10.Jun **2021 Golden Gala Pietro Mennea (Florence, ITA)**
 100m mF Omega Timing (2021). Diamond League race analysis. Retrieved from <http://static.sportresult.com/sports/at/data/2021/rome/are0010040.pdf>
 200m wF Omega Timing (2021). Diamond League race analysis. Retrieved from <http://static.sportresult.com/sports/at/data/2021/rome/are1020040.pdf>
 400m mF Omega Timing (2021). Diamond League race analysis. Retrieved from <http://static.sportresult.com/sports/at/data/2021/rome/are0040040.pdf>
 100mH wF Henson, T. (2021) Athlete First: 2021 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
 110mH mF Henson, T. (2021) Athlete First: 2021 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
 400mH wF Henson, T. (2021) Athlete First: 2021 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
 wF (200m) Omega Timing (2020) Diamond League Race Analysis. Retrieved from <http://static.sportresult.com/sports/at/data/2021/rome/are1270040.pdf>
- 7.Jun **2021 Josef Odložil Memorial (Prague, CZE)**
 200m wF (mboma) Vazel, PJ (2021.06.8) Retrieved from <https://twitter.com/pjvazel/status/1401965630484529154?s=21>
- 6.Jun **2021 Fanny Blankers Koen Games (Hengelo, NED)**
 100mH wF (camacho-quinn) Henson, T. (2021) Athlete First: 2021 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
 110mH mF Henson, T. (2021) Athlete First: 2021 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 6.Jun **2021 Music City Track Carnival (Nashville, TN)**
 400mH wF (mclaughlin) Henson, T. (2021) Athlete First: 2021 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 6.Jun **2021 Fuse Sprint (Tottori, JPN)**
 100m mF Miyashiro, K. (2021.06.21) Retrieved from https://twitter.com/miyashiro_kenji/status/1405866149754019845?s=21
 100mH wF Onishi, K. (2021). Race analysis of the domestic first-class women's 100m hurdles in the 2021 season. *Bulletin of Studies in Athletics of JAAF*, 17, p 161. (in Japanese)
 110mH mF Shibayama, K. (2021). Race analysis of men's 110m hurdles in the 2021 season. *Bulletin of Studies in Athletics of JAAF*, 17, p 150. (in Japanese)
- 6.Jun **2021 Denka Athletics Challenge Cup (Niigata, JPN)**
 400m mF, mB, mC, wF Yamanaka, R. (2021). Race analysis of men's and women's 400m and 300m races in 2021 competition. *Bulletin of Studies in Athletics of JAAF*, 17, p 135, 137. (in Japanese)
 400mH mF, mB, mC, wF, wB, wC Sugimoto, K. (2021). Race analysis of men's and women's 400m hurdles in the 2021 competition. *Bulletin of Studies in Athletics of JAAF*, 17, p 172, 180. (in Japanese)
- 4.Jun **2021 Bislett Night of Highlights (Oslo, NOR) (300m Hurdles)**
 300mH mF Henson, T. (2021) Athlete First: 2021 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 1.Jun **2021 Michitaka Kinami Memorial (Osaka, JPN)**
 100mH wF, wH1 (tereda) Onishi, K. (2021). Race analysis of the domestic first-class women's 100m hurdles in the 2021 season. *Bulletin of Studies in Athletics of JAAF*, 17, p 160. (in Japanese)
 110mH mF Shibayama, K. (2021). Race analysis of men's 110m hurdles in the 2021 season. *Bulletin of Studies in Athletics of JAAF*, 17, p 150. (in Japanese)
 400mH mF, mB, mC, wF, wB Sugimoto, K. (2021). Race analysis of men's and women's 400m hurdles in the 2021 competition. *Bulletin of Studies in Athletics of JAAF*, 17, p 171, 179. (in Japanese)
- 29.May **2021 NCAA Preliminary West Round (College Station, TX)**
 400m wQF2 (mu) Vazel, PJ (2021.05.30) Retrieved from <https://twitter.com/pjvazel/status/1398782574131023879?s=21>
- 29.May **2021 NCAA Championships Preliminary East Round (Jacksonville, FL)**
 100mH wQF1 Henson, T. (2021) Athlete First: 2021 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 29-May **2021 Shimane High School Championships (Izumo, JPN)**

- 100m mF, wF Shimizu, Y. (2021). Shimane high school championships 2021, Biomechanics data analysis. p. 2 & 4. (in Japanese). Retrieved from https://www.shimariiku.jp/_assets/page_files/files/000/027/611/109d3fca623ef99d54a80eeca8f304a90d52a19/最終報告2021.pdf?1622429366
- 200m mF, wF Shimizu, Y. (2021). Shimane high school championships 2021, Biomechanics data analysis. p. 6 & 8. (in Japanese). Retrieved from https://www.shimariiku.jp/_assets/page_files/files/000/027/611/109d3fca623ef99d54a80eeca8f304a90d52a19/最終報告2021.pdf?1622429366
- 400m mF, wF Shimizu, Y. (2021). Shimane high school championships 2021, Biomechanics data analysis. p. 10 & 12. (in Japanese). Retrieved from https://www.shimariiku.jp/_assets/page_files/files/000/027/611/109d3fca623ef99d54a80eeca8f304a90d52a19/最終報告2021.pdf?1622429366
- 100mH wF Shimizu, Y. (2021). Shimane high school championships 2021, Biomechanics data analysis. p. 18. (in Japanese). Retrieved from https://www.shimariiku.jp/_assets/page_files/files/000/027/611/109d3fca623ef99d54a80eeca8f304a90d52a19/最終報告2021.pdf?1622429366
- 110mH mF Shimizu, Y. (2021). Shimane high school championships 2021, Biomechanics data analysis. p. 20. (in Japanese). Retrieved from https://www.shimariiku.jp/_assets/page_files/files/000/027/611/109d3fca623ef99d54a80eeca8f304a90d52a19/最終報告2021.pdf?1622429366
- 400mH mF, wF Shimizu, Y. (2021). Shimane high school championships 2021, Biomechanics data analysis. p. 22 & 24. (in Japanese). Retrieved from https://www.shimariiku.jp/_assets/page_files/files/000/027/611/109d3fca623ef99d54a80eeca8f304a90d52a19/最終報告2021.pdf?1622429366
- 28.May **2021 Doha Diamond League (Doha, QAT)**
- 100m mF Omega Timing (2021). Diamond League race analysis. Retrieved from <http://static.sportresult.com/sports/at/data/2021/doha/are4010040.pdf>
- wF Omega Timing (2021). Diamond League race analysis. Retrieved from <http://static.sportresult.com/sports/at/data/2021/doha/are1010040.pdf>
- 200m mF Omega Timing (2021). Diamond League race analysis. Retrieved from <http://static.sportresult.com/sports/at/data/2021/doha/are0020040.pdf>
- 400m mF Omega Timing (2021). Diamond League race analysis. Retrieved from <http://static.sportresult.com/sports/at/data/2021/doha/are0040040.pdf>
- mBF Omega Timing (2021). Diamond League race analysis. Retrieved from <http://static.sportresult.com/sports/at/data/2021/doha/are4040040.pdf>
- 400mH mF, mBF Henson, T. (2021) Athlete First: 2021 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- mF, mB (200m) Omega Timing (2020) Diamond League Race Analysis. Retrieved from <http://static.sportresult.com/sports/at/data/2021/doha/are0270040.pdf>
<http://static.sportresult.com/sports/at/data/2021/doha/are4270040.pdf>
- 23.May **2021 Müller Grand Prix (Gateshead, GBR)**
- 100m wH1 Omega Timing (2021). Diamond League race analysis. Retrieved from <http://static.sportresult.com/sports/at/data/2021/gateshead/are1010001.pdf>
- 200m mF Omega Timing (2021). Diamond League race analysis. Retrieved from <http://static.sportresult.com/sports/at/data/2021/gateshead/are0020040.pdf>
- 400m wF Omega Timing (2021). Diamond League race analysis. Retrieved from <http://static.sportresult.com/sports/at/data/2021/gateshead/are1040040.pdf>
- 100mH wF Henson, T. (2021) Athlete First: 2021 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 23.May **2021 Chinese East Region Athletics Meeting (Fuzhou, CHN)**
- 100mH wF CAA Hurdle Development (2021): Final 2021 year end report (in Chinese)
- 19.May **2021 Philippe Cup Athletics Invitational (Wuhan, CHN)**
- 100mH wF CAA Hurdle Development (2021): Final 2021 year end report (in Chinese)
- 110mH mF CAA Hurdle Development (2021): Final 2021 year end report (in Chinese)
- 400mH mF, wF CAA Hurdle Development (2021): Final 2021 year end report (in Chinese)
- 15.May **2021 South Eastern Conference Championships (College Station, TX)**
- 400m mF (godwin) Vazel, PJ (2021.05.16) Retrieved from <https://twitter.com/pjvazel/status/1393829441172803591?s=21>
- 15.May **2021 Happy Chengdu Meeting (Chengdu, CHN)**
- 110mH mF (zhu) Jiang W. (2022). Research on pre-competition training of Zhu Shenglong preparing for the 14th national games. (Dissertation) Wuhan Institute of Physical Education. p. 12. (in Chinese)
- 15.May **2021 Central China Athletics Meeting (Ji'an, CHN)**
- 100mH wF CAA Hurdle Development (2021): Final 2021 year end report (in Chinese)
- 11.May **2021 Central China Athletics Meeting (Ji'an, CHN)**
- 100mH wF CAA Hurdle Development (2021): Final 2021 year end report (in Chinese)
- 9.May **2021 USATF Golden Games (Walnut, CA)**
- 100mH wF Henson, T. (2021) Athlete First: 2021 Sydney McLaughlin 400m hurdles world record season. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH mF Henson, T. (2021) Athlete First: 2021 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 9.May **2021 Ready Steady Tokyo (Tokyo, JPN)**

- 200m mF, wF Takahasi, K. (2021). Race analysis of domestic 200m and U16 150m in the Tokyo Olympic season. *Bulletin of Studies in Athletics of JAAF*, 17, p 127. (in Japanese)
- 400m mF, wF Yamanaka, R. (2021). Race analysis of men's and women's 400m and 300m races in 2021 competition. *Bulletin of Studies in Athletics of JAAF*, 17, p 134, 136. (in Japanese)
- 100mH wF Onishi, K. (2021). Race analysis of the domestic first-class women's 100m hurdles in the 2021 season. *Bulletin of Studies in Athletics of JAAF*, 17, p 159. (in Japanese)
- 110mH mF Shibayama, K. (2021). Race analysis of men's 110m hurdles in the 2021 season. *Bulletin of Studies in Athletics of JAAF*, 17, p 149. (in Japanese)
- 400mH mF, wF Sugimoto, K. (2021). Race analysis of men's and women's 400m hurdles in the 2021 competition. *Bulletin of Studies in Athletics of JAAF*, 17, p 170, 178. (in Japanese)
- 3-May **2021 Shizuoka International Athletics Meeting (Fukuroi, JPN)**
- 400m mF, mB, wF, wB Yamanaka, R. (2021). Race analysis of men's and women's 400m and 300m races in 2021 competition. *Bulletin of Studies in Athletics of JAAF*, 17, p 134, 136. (in Japanese)
- 400mH mF, mB, mC, wF, wB Sugimoto, K. (2021). Race analysis of men's and women's 400m hurdles in the 2021 competition. *Bulletin of Studies in Athletics of JAAF*, 17, p 169, 177. (in Japanese)
- 29-Apr **2021 Mikio Oda Memorial (Hiroshima, JPN)**
- 100mH wF Onishi, K. (2021). Race analysis of the domestic first-class women's 100m hurdles in the 2021 season. *Bulletin of Studies in Athletics of JAAF*, 17, p 158. (in Japanese)
- 110mH mF Shibayama, K. (2021). Race analysis of men's 110m hurdles in the 2021 season. *Bulletin of Studies in Athletics of JAAF*, 17, p 149. (in Japanese)
- 24-Apr **2021 USATF Grand Prix (Eugene, OR)**
- 100mH wF Henson, T. (2021) *Athlete First: 2021 year end hurdle report*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 24-Apr **2021 East China District Meeting (Zhaoqing, CHN)**
- 100mH wF CAA Hurdle Development (2021): *Final 2021 year end report* (in Chinese)
- 110mH mF, mH CAA Hurdle Development (2021): *Final 2021 year end report* (in Chinese)
- 400mH mF, mH, wF, wH CAA Hurdle Development (2021): *Final 2021 year end report* (in Chinese)
- 17-Apr **2021 Tom Jones Invitational (Gainesville, FL)**
- 100mH wF (camacho-quinn) Henson, T. (2021) *Athlete First: 2021 year end hurdle report*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 110mH mF (holloway) Henson, T. (2021) *Athlete First: 2021 year end hurdle report*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 16-Apr **2021 Bryan Clay Invitational (Azusa, CA)**
- 100mH wF (mclaughlin) Henson, T. (2021) *Athlete First: 2021 Sydney McLaughlin 400m hurdles world record season*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 11-Apr **2021 International All Comers Meeting (Lusaka, ZAM)**
- 400m wF Vazel, P.J. (2021.04.14) Retrieved from <https://twitter.com/pjvazel/status/1382341180789231617?s=21>
- 8-Apr **2021 Yangtze River Delta Athletics Meeting (Shaoxing, CHN)**
- 100mH wF CAA Hurdle Development (2021): *Final 2021 year end report* (in Chinese)
- 110mH mF CAA Hurdle Development (2021): *Final 2021 year end report* (in Chinese)
- 2-Apr **2021 National Grand Prix (Chengdu, CHN)**
- 100mH wF, wH CAA Hurdle Development (2021): *Final 2021 year end report* (in Chinese)
- 110mH mF, mH CAA Hurdle Development (2021): *Final 2021 year end report* (in Chinese)
- 400mH mF, wF CAA Hurdle Development (2021): *Final 2021 year end report* (in Chinese)
- 18-Mar **2021 National Indoor Grand Prix (Jinan, CHN)**
- 60mH mF, wF CAA Hurdle Development (2021): *Final 2021 year end report* (in Chinese)
- 13-Mar **2021 National Indoor Grand Prix (Chengdu, CHN)**
- 60mH mAF, mBF, wAF, wBF, wH CAA Hurdle Development (2021): *Final 2021 year end report* (in Chinese)
- 7-Mar **2021 European Indoor Championships (Toruń, POL) (TV Analysis)**
- 60mH mF, wF Henson, T. (2021) *Athlete First: 2021 year end hurdle report*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 24-Feb **2021 Villa de Madrid (Madrid, ESP)**
- 60mH mF (holloway) Vazel, P.J. (2021.02.25) Retrieved from <https://twitter.com/pjvazel/status/1364677209525485569>
- mF, mH Henson, T. (2021) *Athlete First: 2021 Grant Holloway world indoor record season*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 17-Feb **2021 Copernicus Cup (Toruń, POL) (TV Analysis)**
- 60mH mF Henson, T. (2021) *Athlete First: 2021 Grant Holloway world indoor record season*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 14-Feb **2021 Meeting Elite en Salle de L'Eure (Val-de-Reuil, FRA) (TV Analysis)**
- 60mH mF, mH Henson, T. (2021) *Athlete First: 2021 Grant Holloway world indoor record season*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 9-Feb **2021 Meeting Hauts-de-France Pas-de-Calais (Liévin, FRA)**
- 60mH mF (holloway) Vazel, P.J. (2021.02.10) Retrieved from <https://twitter.com/pjvazel/status/1359286403834724356>
- mF, mH Henson, T. (2021) *Athlete First: 2021 Grant Holloway world indoor record season*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 6-Feb **2021 Meeting Elite en Salle de Metz (Metz, FRA)**
- 60mH mF, mH (belocian) Vazel, P.J. (2021.02.10) Retrieved from <https://twitter.com/pjvazel/status/1358428540241399810>
- 24-Jan **2021 American Track League 1 (Fayetteville, AR) (TV Analysis)**
- 60mH mF, mH Henson, T. (2021) *Athlete First: 2021 Grant Holloway world indoor record season*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 25-Oct **2020 Japanese U20 National Championships (Hiroshima, JPN)**

- 100m mF, mH, wF Kobayashi, K. (2020). National high school and U20 national championships. *Bulletin of Studies in Athletics of JAAF*, 16, p 106. (in Japanese)
- 200m mF, mH, wF Takahasi, K. (2020). 200m race analysis of top japanese sprinters in 2020. *Bulletin of Studies in Athletics of JAAF*, 16, p 96, 107. (in Japanese)
- 400m mF, mH, wF Kobayashi, K. (2020). National high school and U20 national championships. *Bulletin of Studies in Athletics of JAAF*, 16, p 108. (in Japanese)
- 400mH mF, mBF, wF Sugimoto, K. (2020). Race pattern analysis of japan's top male and female 400m hurdlers- 2020 season. *Bulletin of Studies in Athletics of JAAF*, 16, p 185, 192. (in Japanese)
- 25-Oct **2020 Japanese High School National Championships (Hiroshima, JPN)**
- 100m mF, mH, wF Kobayashi, K. (2020). National high school and U20 national championships. *Bulletin of Studies in Athletics of JAAF*, 16, p 106. (in Japanese)
- 200m mF, mH, wF Takahasi, K. (2020). 200m race analysis of top japanese sprinters in 2020. *Bulletin of Studies in Athletics of JAAF*, 16, p 95, 107. (in Japanese)
- 400m mF, mH, wF Kobayashi, K. (2020). National high school and U20 national championships. *Bulletin of Studies in Athletics of JAAF*, 16, p 108. (in Japanese)
- 400mH mF, wF Sugimoto, K. (2020). Race pattern analysis of japan's top male and female 400m hurdlers- 2020 season. *Bulletin of Studies in Athletics of JAAF*, 16, p 186, 193. (in Japanese)
- 24-Oct **2020 Michitaka Kinami Memorial (Osaka, JPN)**
- 100mH wF Kijima, K. (2020). Race analysis of 2020 top domestic japanese 100m hurdlers. *Bulletin of Studies in Athletics of JAAF*, 16, p 164. (in Japanese)
- 110mH mF Shibayama, I. (2020). Race analysis of men's 110m hurdles in the 2020 season. *Bulletin of Studies in Athletics of JAAF*, 16, p 153. (in Japanese)
- 400mH mF, mBF, wF, wBF, wCF Sugimoto, K. (2020). Race pattern analysis of japan's top male and female 400m hurdlers- 2020 season. *Bulletin of Studies in Athletics of JAAF*, 16, p 184, 191. (in Japanese)
- 2-Oct **2020 Japanese National Championships (Niigata, JPN)**
- 100m mF, mH Ohunma, H. (2020). Men's 100m race analysis at major competitions in 2020. *Bulletin of Studies in Athletics of JAAF*, 16, p 84, 86. (in Japanese)
- wF Takahashi, W., (2021). Race analysis of 100m women's athletes in major domestic competitions, focusing on Mei Kodama. *Bulletin of Studies in Athletics of JAAF*, 17, p 114. (in Japanese)
- 200m mF, wF Takahasi, K. (2020). 200m race analysis of top japanese sprinters in 2020. *Bulletin of Studies in Athletics of JAAF*, 16, p 94. (in Japanese)
- wF Hirokawa, R. (2020) - Research on athlete performance and technique- 2020 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 80. (in Japanese)
- 400m mF, mH, wF, wH Yamanaka, R. (2020). 400m race analysis of men and women during 2020 season. *Bulletin of Studies in Athletics of JAAF*, 16, p 118, 120. (in Japanese)
- 100mH wF Kijima, K. (2020). Race analysis of 2020 top domestic japanese 100m hurdlers. *Bulletin of Studies in Athletics of JAAF*, 16, p 163. (in Japanese)
- 110mH mF, mH Shibayama, I. (2020). Race analysis of men's 110m hurdles in the 2020 season. *Bulletin of Studies in Athletics of JAAF*, 16, p 153, 155. (in Japanese)
- 400mH mF, wF Sugimoto, K. (2020). Race pattern analysis of japan's top male and female 400m hurdlers- 2020 season. *Bulletin of Studies in Athletics of JAAF*, 16, p 183, 190. (in Japanese)
- 26-Sep **2020 Japanese Multi-Event National Championships (Nagano, JPN)**
- 100m mDec H3, mDec H1 Matsubayashi, T. (2020) - Research on athlete performance and technique- 2020 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 67. (in Japanese)
- 200m wHept H3 Matsubayashi, T. (2020) - Research on athlete performance and technique- 2020 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 71. (in Japanese)
- 400m mDec H3, mDec H1 Matsubayashi, T. (2020) - Research on athlete performance and technique- 2020 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 68. (in Japanese)
- 100mH wHept H3 Matsubayashi, T. (2020) - Research on athlete performance and technique- 2020 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 72. (in Japanese)
- 110mH mDec H3, mDec H2 Matsubayashi, T. (2020) - Research on athlete performance and technique- 2020 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 69. (in Japanese)
- 25-Sep **2020 Doha Diamond League (Doha, QAT)**
- 200m mF Omega Timing (2020) Diamond League Race Analysis. Retrieved from <https://static.sportresult.com/sports/at/data/2020/doha/are0020040.pdf>
- 100mH wF Henson, T. (2020) Athlete First: 2020 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 110mH mF Henson, T. (2020) Athlete First: 2020 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 20-Sep **2020 Norwegian National Championships (Bergen, NOR)**
- 400mH mF Henson, T. (2020) Athlete First: 2020 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 20-Sep **2020 All Japan Corporate Championships (Kumagaya, JPN)**
- 100m mF Ohunma, H. (2020). Men's 100m race analysis at major competitions in 2020. *Bulletin of Studies in Athletics of JAAF*, 16, p 84. (in Japanese)
- wF, wB Takahashi, W., (2021). Race analysis of 100m women's athletes in major domestic competitions, focusing on Mei Kodama. *Bulletin of Studies in Athletics of JAAF*, 17, p 114. (in Japanese)
- 200m mF, wF Takahasi, K. (2020). 200m race analysis of top japanese sprinters in 2020. *Bulletin of Studies in Athletics of JAAF*, 16, p 93. (in Japanese)
- 400m mF, wF Yamanaka, R. (2020). 400m race analysis of men and women during 2020 season. *Bulletin of Studies in Athletics of JAAF*, 16, p 117, 119. (in Japanese)

- 100mH wF Kijima, K. (2020). Race analysis of 2020 top domestic japanese 100m hurdlers. *Bulletin of Studies in Athletics of JAAF*, 16, p 162. (in Japanese)
- 110mH mF, mH2 Shibayama, I. (2020). Race analysis of men's 110m hurdles in the 2020 season. *Bulletin of Studies in Athletics of JAAF*, 16, p 152. (in Japanese)
- 400mH mF, wF Sugimoto, K. (2020). Race pattern analysis of japan's top male and female 400m hurdlers- 2020 season. *Bulletin of Studies in Athletics of JAAF*, 16, p 182, 189. (in Japanese)
- 17-Sep **2020 Golden Gala Pietro Mennea (Rome, ITA)**
- 100m mF, wF Omega Timing (2020) Diamond League Race Analysis. Retrieved from <https://static.sportresult.com/sports/at/data/2020/rome/are0010040.pdf>
<https://static.sportresult.com/sports/at/data/2020/rome/are1010040.pdf>
- 400m wF Omega Timing (2020) Diamond League Race Analysis. Retrieved from <https://static.sportresult.com/sports/at/data/2020/rome/are1040040.pdf>
- 100mH wF Henson, T. (2020) Athlete First: 2020 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 110mH mF Henson, T. (2020) Athlete First: 2020 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH mF, wF Henson, T. (2020) Athlete First: 2020 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- mF (200m), wF (200m) Omega Timing (2020) Diamond League Race Analysis. Retrieved from <http://static.sportresult.com/sports/at/data/2020/rome/are0270040.pdf>
<http://static.sportresult.com/sports/at/data/2020/rome/are1270040.pdf>
- 16-Sep **2020 Chinese National Championships (Shaoxing, CHN)**
- 100mH wF CAA Hurdle Development (2020): Final 2020 year end report (in Chinese)
- 110mH mF CAA Hurdle Development (2020): Final 2020 year end report (in Chinese)
- 400mH mF, wF CAA Hurdle Development (2020): Final 2020 year end report (in Chinese)
- 15-Sep **2020 Galà dei Castelli (Bellinzona, SUI)**
- 100mH wF Henson, T. (2020) Athlete First: 2020 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH wF Henson, T. (2020) Athlete First: 2020 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 13-Sep **2020 French National Championships (Albi, FRA)**
- 100mH wF Henson, T. (2020) Athlete First: 2020 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 110mH mF Henson, T. (2020) Athlete First: 2020 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 13-Sep **2020 ISTAF (Berlin, GER)**
- 400mH mF Henson, T. (2020) Athlete First: 2020 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 8-Sep **2020 Golden Spike (Ostrava, CZE)**
- 400mH mF Henson, T. (2020) Athlete First: 2020 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 6-Sep **2020 World Athletics Trials (Fuji, JPN)**
- 100m mR1, mR2 Ohunma, H. (2020). Men's 100m race analysis at major competitions in 2020. *Bulletin of Studies in Athletics of JAAF*, 16, p 84. (in Japanese)
- wR2, wH1 Takahashi, W., (2021). Race analysis of 100m women's athletes in major domestic competitions, focusing on Mei Kodama. *Bulletin of Studies in Athletics of JAAF*, 17, p 113. (in Japanese)
- 200m mR3, wR2 Takahashi, K. (2020). 200m race analysis of top japanese sprinters in 2020. *Bulletin of Studies in Athletics of JAAF*, 16, p 93. (in Japanese)
- 400m mF (2), wF (aoyama) Yamanaka, R. (2020). 400m race analysis of men and women during 2020 season. *Bulletin of Studies in Athletics of JAAF*, 16, p 117, 119. (in Japanese)
- 100mH wR2 Kijima, K. (2020). Race analysis of 2020 top domestic japanese 100m hurdlers. *Bulletin of Studies in Athletics of JAAF*, 16, p 161. (in Japanese)
- 110mH mR2 Shibayama, I. (2020). Race analysis of men's 110m hurdles in the 2020 season. *Bulletin of Studies in Athletics of JAAF*, 16, p 152. (in Japanese)
- 400mH mF, mBF Sugimoto, K. (2020). Race pattern analysis of japan's top male and female 400m hurdlers- 2020 season. *Bulletin of Studies in Athletics of JAAF*, 16, p 181. (in Japanese)
- 4-Sep **2020 Memorial Van Damme (Brussels, BEL)**
- 100m wF Omega Timing (2020) Diamond League Race Analysis. Retrieved from <https://static.sportresult.com/sports/at/data/2020/brussels/are1010040.pdf>
- 200m mF Omega Timing (2020) Diamond League Race Analysis. Retrieved from <https://static.sportresult.com/sports/at/data/2020/brussels/are0020040.pdf>
- 400m wF Omega Timing (2020) Diamond League Race Analysis. Retrieved from <https://static.sportresult.com/sports/at/data/2020/brussels/are1040040.pdf>
- 100mH wF Henson, T. (2020) Athlete First: 2020 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 3-Sep **2020 Meeting Pro Athlé Tour de Marseille (Marseille, FRA)**
- 110mH mF Henson, T. (2020) Athlete First: 2020 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 29-Aug **2020 Athlete Night Games (Fukui, JPN)**
- 100m mF, mH2 Ohunma, H. (2020). Men's 100m race analysis at major competitions in 2020. *Bulletin of Studies in Athletics of JAAF*, 16, p 84. (in Japanese)

- wF Takahashi, W., (2021). Race analysis of 100m women's athletes in major domestic competitions, focusing on Mei Kodama. *Bulletin of Studies in Athletics of JAAF*, 17, p 113. (in Japanese)
- 200m mF Takahashi, K. (2020). 200m race analysis of top japanese sprinters in 2020. *Bulletin of Studies in Athletics of JAAF*, 16, p 92. (in Japanese)
- 100mH wF Kijima, K. (2020). Race analysis of 2020 top domestic japanese 100m hurdlers. *Bulletin of Studies in Athletics of JAAF*, 16, p 160. (in Japanese)
- 110mH mF, mH Shibayama, I. (2020). Race analysis of men's 110m hurdles in the 2020 season. *Bulletin of Studies in Athletics of JAAF*, 16, p 151, 155. (in Japanese)
- 23-Aug **2020 Bauhaus Galan (Stockholm, SWE)**
- 100m wF Omega Timing (2020) *Diamond League Race Analysis*. Retrieved from <https://static.sportresult.com/sports/at/data/2020/stockholm/are1010040.pdf>
- 200m mF Omega Timing (2020) *Diamond League Race Analysis*. Retrieved from <https://static.sportresult.com/sports/at/data/2020/stockholm/are0020040.pdf>
- 400m mF, wF Omega Timing (2020) *Diamond League Race Analysis*. Retrieved from <https://static.sportresult.com/sports/at/data/2020/stockholm/are0040040.pdf>
- 100mH wF <https://static.sportresult.com/sports/at/data/2020/stockholm/are1040040.pdf>
- Henson, T. (2020) *Athlete First: 2020 year end hurdle report*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH mF, wF Henson, T. (2020) *Athlete First: 2020 year end hurdle report*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- mF (200m), wF (200m) Omega Timing (2020) *Diamond League Race Analysis*. Retrieved from <http://static.sportresult.com/sports/at/data/2020/stockholm/are0270040.pdf>
- <http://static.sportresult.com/sports/at/data/2020/stockholm/are1270040.pdf>
- 23-Aug **2020 Seiko Golden Grand Prix (Tokyo, JPN)**
- 100m mH Ohunma, H. (2020). Men's 100m race analysis at major competitions in 2020. *Bulletin of Studies in Athletics of JAAF*, 16, p 84. (in Japanese)
- wF Takahashi, W., (2021). Race analysis of 100m women's athletes in major domestic competitions, focusing on Mei Kodama. *Bulletin of Studies in Athletics of JAAF*, 17, p 113. (in Japanese)
- 200m mF Takahashi, K. (2020). 200m race analysis of top japanese sprinters in 2020. *Bulletin of Studies in Athletics of JAAF*, 16, p 92. (in Japanese)
- 400m mF, wF Yamanaka, R. (2020). 400m race analysis of men and women during 2020 season. *Bulletin of Studies in Athletics of JAAF*, 16, p 117, 119. (in Japanese)
- 100mH wF Kijima, K. (2020). Race analysis of 2020 top domestic japanese 100m hurdlers. *Bulletin of Studies in Athletics of JAAF*, 16, p 159. (in Japanese)
- 110mH mF Shibayama, I. (2020). Race analysis of men's 110m hurdles in the 2020 season. *Bulletin of Studies in Athletics of JAAF*, 16, p 151. (in Japanese)
- 400mH mF, wF Sugimoto, K. (2020). Race pattern analysis of japan's top male and female 400m hurdlers- 2020 season. *Bulletin of Studies in Athletics of JAAF*, 16, p 180, 188. (in Japanese)
- 19-Aug **2020 István Gyulai Memorial (Székesfehérvár, HUN)**
- 100mH wF Henson, T. (2020) *Athlete First: 2020 year end hurdle report*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 110mH mF Henson, T. (2020) *Athlete First: 2020 year end hurdle report*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH wF Henson, T. (2020) *Athlete First: 2020 year end hurdle report*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 14-Aug **2020 Herculis Meeting International d'Athletisme (Monaco, MON)**
- 110mH mF Henson, T. (2020) *Athlete First: 2020 year end hurdle report*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH mF Henson, T. (2020) *Athlete First: 2020 year end hurdle report*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 14-Aug **2020 Finnish National Championships (Turku, FIN)**
- 100mH wF Henson, T. (2020) *Athlete First: 2020 year end hurdle report*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 11-Aug **2020 Paavo Nurmi Games (Turku, FIN)**
- 100mH wF Henson, T. (2020) *Athlete First: 2020 year end hurdle report*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 110mH mF Henson, T. (2020) *Athlete First: 2020 year end hurdle report*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 19-Jul **2020 CAA Shanghai Training Base Permit Meeting (Shanghai, CHN)**
- 110mH mF (xie) Shanghai Sport Institute (2020) - competition analysis
- 11-Jul **2020 Shimane High School Championships (Izumo, JPN)**
- 100m mF, wF Shimizu, Y. (2020). Shimane high school championships 2020, *Biomechanics data analysis*. p. 2 & 4. (in Japanese). Retrieved from https://www.shimariiku.jp/_assets/page_files/files/000/022/508/56b190a53ba2c37db52146b950844704dd73130c/2020バイオメカニクスデータ.pdf?1594714992
- 200m mF, wF Shimizu, Y. (2019). Shimane high school championships 2019, *Biomechanics data analysis*. p. 6 & 8. (in Japanese). Retrieved from https://www.shimariiku.jp/_assets/page_files/files/000/022/508/56b190a53ba2c37db52146b950844704dd73130c/2020バイオメカニクスデータ.pdf?1594714992

- 400m mF, wF Shimizu, Y. (2019). Shimane high school championships 2019, Biomechanics data analysis. p. 10 & 12. (in Japanese). Retrieved from https://www.shimariiku.jp/_assets/page_files/files/000/022/508/56b190a53ba2c37db52146b950844704dd73130c/2020バイオメカニクスデータ.pdf?1594714992
- 100mH wF Shimizu, Y. (2019). Shimane high school championships 2019, Biomechanics data analysis. p. 20. (in Japanese). Retrieved from https://www.shimariiku.jp/_assets/page_files/files/000/022/508/56b190a53ba2c37db52146b950844704dd73130c/2020バイオメカニクスデータ.pdf?1594714992
- 110mH mF Shimizu, Y. (2019). Shimane high school championships 2019, Biomechanics data analysis. p. 18. (in Japanese). Retrieved from https://www.shimariiku.jp/_assets/page_files/files/000/022/508/56b190a53ba2c37db52146b950844704dd73130c/2020バイオメカニクスデータ.pdf?1594714992
- 400mH mF, wF Shimizu, Y. (2019). Shimane high school championships 2019, Biomechanics data analysis. p. 22 & 24. (in Japanese). Retrieved from https://www.shimariiku.jp/_assets/page_files/files/000/022/508/56b190a53ba2c37db52146b950844704dd73130c/2020バイオメカニクスデータ.pdf?1594714992
- 9-Jul **2020 Inspiration Games (Zürich, SUI)**
400mH wF (300m) Henson, T. (2020) Athlete First: 2020 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 8-Jul **2020 Motonet GP (Jyräskylä, FIN)**
100mH wF Henson, T. (2020) Athlete First: 2020 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 11-Jun **2020 Impossible Games (Oslo, NOR)**
400mH mF (300m), wF (300m) Henson, T. (2020) Athlete First: 2020 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 15-Feb **2020 USATF Indoor National Championships (Albuquerque, NM) (Altitude)**
60mH mF, mSF, mH, wF, wH CAA Hurdle Development (2020): Final 2020 year end report (in Chinese)
- 14-Feb **2020 Don Kirby Elite Invitational (Albuquerque, NM) (Altitude)**
60mH mF, mSF, mH, wF, wSF, wH CAA Hurdle Development (2020): Final 2020 year end report (in Chinese)
- 8-Feb **2020 Millrose Games (New York, NY)**
60m mF, wF, wU18F PrimeTime Timing (2020.02.08) Retrieved from <http://results.nyrrmillrosegames.org/>
60mH wF PrimeTime Timing (2020.02.08) Retrieved from <http://results.nyrrmillrosegames.org/>
mF Henson, T. (2020) Athlete First: 2020 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 1-Feb **2020 Mountain T's Invitational (Flagstaff AZ) (Altitude)**
60mH mF, mH, wF, wH CAA Hurdle Development (2020): Final 2020 year end report (in Chinese)
- 25-Jan **2020 New Balance Indoor Grand Prix (Boston, MA)**
60m mF PrimeTime Timing (2020.01.26) Retrieved from <https://results.nbindoorgandprix.com/>
60mH wF, wH PrimeTime Timing (2020.01.26) Retrieved from <https://results.nbindoorgandprix.com/>
- 17-Jan **2020 Leonard Hilton Memorial Invitational (Houston, TX)**
60mH mF, mH, wF, wH CAA Hurdle Development (2020): Final 2020 year end report (in Chinese)
- 20-Oct **2019 Japanese National U18/U20 Championships (Hiroshima, JPN)**
200m mU20F, mU18F, wU20F, wU18F Kijima (2019) - research on athlete performance and technique- 2019 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 201-204. (in Japanese)
300m mU18F, wU18F Kijima (2019) - research on athlete performance and technique- 2019 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 205, 206. (in Japanese)
400m mU20F, wU20F Kijima (2019) - research on athlete performance and technique- 2019 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 207, 208. (in Japanese)
100mH wU20F, wU18F Kijima (2019) - research on athlete performance and technique- 2019 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 210. (in Japanese)
110mH mU20F, mU18F Kijima (2019) - research on athlete performance and technique- 2019 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 209. (in Japanese)
- 5-Oct **2019 National Sports Festival (Hitachinaka, JPN)**
100m mF, mU20F, mU18F, wF, wU20F, wU18F Enomoto (2019) - research on athlete performance and technique- 2019 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 183. (in Japanese)
100mH wF Enomoto (2019) - research on athlete performance and technique- 2019 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 185. (in Japanese)
110mH mF Enomoto (2019) - research on athlete performance and technique- 2019 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 184. (in Japanese)
400mH mF(1), wF(1) Enomoto (2019) - research on athlete performance and technique- 2019 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 186. (in Japanese)
wU18F (yamamoto) Wanami, S. (2023). Race analysis of the men's and women's 400m hurdles in the 2022 season. Bulletin of Studies in Athletics of JAAF, 18, p 173. (in Japanese)
- 2-Oct **2019 IAAF World Championships (Doha, QAT)**
100m mF, mSF(1), mH(1) Hayato, O. (2019). Race analysis of men's 100m at major comeptions in 2019. Bulletin of Studies in Athletics of JAAF, 15, p 133. (in Japanese)
wF Takahashi, K. (2019). Running performance analysis of women's 100m of leading sprinters: World, Asia, and Japan. Bulletin of Studies in Athletics of JAAF, 15, p 140. (in Japanese)

	mF	Pang L. (2021). Kinematic analysis of key technical links of eight athletes in men's 100m final of 2019 Doha world championships. (Dissertation). Capital College of Physical Education. p. 24 (in Chinese)
	200m mF, mH (JPN), wF	Takahashi, K. (2019). Race analysis of top 200m athletes: Focusing on major domestic and international competitions. <i>Bulletin of Studies in Athletics of JAAF</i> , 15, p 156. (in Japanese)
	400m mF, mSF, wF, wSF	Yamanaka, R. (2019) Race analysis of men and women 400m competition. <i>Bulletin of Studies in Athletics of JAAF</i> , 15, p 163, 166. (in Japanese)
	100mH wF, wSF3	CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
	wSF2, wSF3	Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from http://www.athetefirst.org (TV Analysis)
	wH (terada)	TFData-Store (2019.12.20) Retrieved from http://tfdata-store.com/2019/09/02/post-1606/ (in Japanese)
	wH, wHept	Henson, T. (2021) Athlete First: 2019 year end hurdle report. Retrieved from http://www.athetefirst.org (TV Analysis)
	110mH mF, mSF	CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
	mH (JPN)	Shibayama, K. (2019). Race analysis of men's 110m hurdles in the 2019 season. <i>Bulletin of Studies in Athletics of JAAF</i> , 15, p 222. (in Japanese)
	mH2 (braithwaite),	Shibayama, I. (2020). Race analysis of men's 110m hurdles in the 2020 season. <i>Bulletin of Studies in Athletics of JAAF</i> , 16, p 155. (in Japanese)
	mH5 (ortega)	
	mH, mDeca	Henson, T. (2021) Athlete First: 2019 year end hurdle report. Retrieved from http://www.athetefirst.org (TV Analysis)
	400mH mf, mSF	Kakehata, G. (2019). Race analysis of men's 400m hurdles at the 2019 IAAF World Championships Doha: Considerations of Japanese athletes challenges toward the Tokyo Olympic Games. <i>Bulletin of Studies in Athletics of JAAF</i> , 15, p 120, 122. (in Japanese)
	wF (muhammad)	Sugimoto, K. (2019). World championship competition performance analysis: Women's hurdles. <i>Bulletin of Studies in Athletics of JAAF</i> , 15, p 19. (in Japanese)
	wF, wSF	Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from http://www.athetefirst.org (TV Analysis)
	mH, wH	Henson, T. (2021) Athlete First: 2019 year end hurdle report. Retrieved from http://www.athetefirst.org (TV Analysis)
9-Sep	2019 The Match - Europe v USA (Minsk, BLR)	
	100m mF, wF	European Athletics (2019). The Match - race analysis. (https://www.european-athletics.org/externalmodules/AT/pdf/ATM001101_C77A.pdf) (https://www.european-athletics.org/externalmodules/AT/pdf/ATW001101_C77A.pdf)
	200m mF, wF	European Athletics (2019). The Match - race analysis. (https://www.european-athletics.org/externalmodules/AT/pdf/ATM002101_C77A.pdf) (https://www.european-athletics.org/externalmodules/AT/pdf/ATW002101_C77A.pdf)
	400m mF, wF	European Athletics (2019). The Match - race analysis. (https://www.european-athletics.org/externalmodules/AT/pdf/ATM004101_C77A.pdf) (https://www.european-athletics.org/externalmodules/AT/pdf/ATW004101_C77A.pdf)
	100mH wF	Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from http://www.athetefirst.org (TV Analysis)
	110mH mF	Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from http://www.athetefirst.org (TV Analysis)
	400mH mF, wF	Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from http://www.athetefirst.org (TV Analysis)
6-Sep	2019 Memorial van Damme (Brussels, BEL)	
	100m wF	Omega Timing (2019). IAAF diamond league race analysis. (http://static.sportresult.com/sports/at/data/2019/brussels/are1010040.pdf)
	200m mF	Omega Timing (2019). IAAF diamond league race analysis. (http://static.sportresult.com/sports/at/data/2019/brussels/are0020040.pdf)
	400m mF, mNatF, wNatF	Omega Timing (2019). IAAF diamond league race analysis. (http://static.sportresult.com/sports/at/data/2019/brussels/are0040040.pdf) (http://static.sportresult.com/sports/at/data/2019/brussels/are6040040.pdf) (http://static.sportresult.com/sports/at/data/2019/brussels/are7040040.pdf)
	100mH wF	Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from http://www.athetefirst.org (TV Analysis)
	110mH mF	Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from http://www.athetefirst.org (TV Analysis)
1-Sep	2019 Japanese World Championships Trials (Fujiyoshida, JPN)	
	100m mF (2)	Hayato, O. (2019). Race analysis of men's 100m at major comeptions in 2019. <i>Bulletin of Studies in Athletics of JAAF</i> , 15, p 133. (in Japanese)
	400m mF	Yamanaka, R. (2019) Race analysis of men and women 400m competition. <i>Bulletin of Studies in Athletics of JAAF</i> , 15, p 163. (in Japanese)
	100mH wF	Kijima, K. (2019). Race analysis of 100m hurdles of top-ranked women in 2019 major Japanese and international competitions. <i>Bulletin of Studies in Athletics of JAAF</i> , 15, p 212. (in Japanese)
	110mH mF	Shibayama, K. (2019). Race analysis of men's 110m hurdles in the 2019 season. <i>Bulletin of Studies in Athletics of JAAF</i> , 15, p 222. (in Japanese)
1-Sep	2019 ISTAF (Berlin, GER)	
	110mH mF	Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from http://www.athetefirst.org (TV Analysis)
29-Aug	2019 Weltklasse (Zürich, SUI)	

- 100m mF Omega Timing (2019). IAAF diamond league race analysis. Retrieved from (<http://static.sportresult.com/sports/at/data/2019/zurich/are0010040.pdf>)
- 200m wF Omega Timing (2019). IAAF diamond league race analysis. Retrieved from (<http://static.sportresult.com/sports/at/data/2019/zurich/are1020040.pdf>)
- 400m wF Omega Timing (2019). IAAF diamond league race analysis. Retrieved from (<http://static.sportresult.com/sports/at/data/2019/zurich/are1040040.pdf>)
- 400mH mF, wF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- mF (200m),wF (200m) Omega Timing (2020) Diamond League Race Analysis. Retrieved from <http://static.sportresult.com/sports/at/data/2019/zurich/are0270040.pdf>
<http://static.sportresult.com/sports/at/data/2019/zurich/are1270040.pdf>
- 24-Aug **2019 Meeting de Paris (Paris, FRA)**
- 100m wF Omega Timing (2019). IAAF diamond league race analysis. Retrieved from (<http://static.sportresult.com/sports/at/data/2019/paris/are1010040.pdf>)
- 200m mF Omega Timing (2019). IAAF diamond league race analysis. Retrieved from (<http://static.sportresult.com/sports/at/data/2019/paris/are0020040.pdf>)
- 400m wF Omega Timing (2019). IAAF diamond league race analysis. Retrieved from (<http://static.sportresult.com/sports/at/data/2019/paris/are1040040.pdf>)
- 110mH mF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH mF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- mF (200m) Omega Timing (2020) Diamond League Race Analysis. Retrieved from <http://static.sportresult.com/sports/at/data/2019/paris/are0270040.pdf>
- 24-Aug **2019 Chinese National Grand Prix Final (Daqing, CHN)**
- 100mH wF, wH, wHept CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
- 110mH mF, mH, mDec CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
- 400mH mF, mH, wF, wH CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
- 18-Aug **2019 Müller Grand Prix (Birmingham, GBR)**
- 100m mF, mH, wF Omega Timing (2019). IAAF diamond league race analysis. Retrieved from (<http://static.sportresult.com/sports/at/data/2019/birmingham/are0010040.pdf>)
(<http://static.sportresult.com/sports/at/data/2019/birmingham/are0010002.pdf>)
(<http://static.sportresult.com/sports/at/data/2019/birmingham/are0010001.pdf>)
(<http://static.sportresult.com/sports/at/data/2019/birmingham/are5010040.pdf>)
- 200m wF Omega Timing (2019). IAAF diamond league race analysis. Retrieved from (<http://static.sportresult.com/sports/at/data/2019/birmingham/are1020040.pdf>)
- 400m mF Omega Timing (2019). IAAF diamond league race analysis. Retrieved from (<http://static.sportresult.com/sports/at/data/2019/birmingham/are0040040.pdf>)
- 100mH wF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 110mH mF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH mF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- mF (200m) Omega Timing (2019). IAAF diamond league race analysis. Retrieved from <http://static.sportresult.com/sports/at/data/2019/birmingham/are0270040.pdf>
- 17-Aug **2019 Athlete Night Games (Fukui, JPN)**
- 100mH wF (terada) TFData-Store (2019.12.20) Retrieved from <http://tfdata-store.com/2019/09/02/post-1606/> (in Japanese)
- 110mH mF (takayama) TFData-Store (2019.12.20) Retrieved from <http://tfdata-store.com/2019/09/03/post-1615/> (in Japanese)
- 14-Aug **2019 Chinese National Youth Games (Taiyuan, CHN)**
- 100mH wU20F, wU20H, wU18F CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
- 110mH mU20F, mU20H, mU18F CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
- 400mH mU20F, mU20H, mU18F, wU20F, wU20H, wU18F CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
- 8-Aug **2019 Pan American Games (Lima, PER)**
- 100mH wF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 110mH mF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH mF, wF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 7-Aug **2019 Japanese National High School Championships (Okinawa, JPN)**
- 100m mF, wF Kota, T., Kazuhito, K., Fukuda, A., Kohei, Y., & Miyashita, T. (2019). 7nd high school championships: JAF scientific committee - biomechanics data collection. p. 2, 32. (in Japanese)
- 200m mF, wF Kota, T., Kazuhito, K., Fukuda, A., Kohei, Y., & Miyashita, T. (2019). 7nd high school championships: JAF scientific committee - biomechanics data collection. p. 4, 34. (in Japanese)
- 400m mF, wF Kota, T., Kazuhito, K., Fukuda, A., Kohei, Y., & Miyashita, T. (2019). 7nd high school championships: JAF scientific committee - biomechanics data collection. p. 6, 36. (in Japanese)

- 100mH wF Kota, T., Kazuhito, K., Fukuda, A., Kohei, Y., & Miyashita, T. (2019). 7nd high school championships: JAF scientific committee - biomechanics data collection. p. 44. (in Japanese)
- 110mH mF Kota, T., Kazuhito, K., Fukuda, A., Kohei, Y., & Miyashita, T. (2019). 7nd high school championships: JAF scientific committee - biomechanics data collection. p. 14. (in Japanese)
- 400mH mF, wF Kota, T., Kazuhito, K., Fukuda, A., Kohei, Y., & Miyashita, T. (2019). 7nd high school championships: JAF scientific committee - biomechanics data collection. p. 16, 46. (in Japanese)
- 2-Aug **2019 Norwegian National Championships (Hamar, NOR)**
400mH mF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 2-Aug **2019 Chinese World Championships Trials (Shenyang, CHN)**
100m mF Jiang Z. (2019). Data analysis of men's sprint finals in the Chinese world championships trials. CAA Sport Science, Beijing, CHN. (unpublished report). (in Chinese)
wF Jiang Z. (2019). Data analysis of women's sprint finals in the Chinese world championships trials. CAA Sport Science, Beijing, CHN. (unpublished report). (in Chinese)
200m mF Jiang Z. (2019). Data analysis of men's sprint finals in the Chinese world championships trials. CAA Sport Science, Beijing, CHN. (unpublished report). (in Chinese)
wF Jiang Z. (2019). Data analysis of women's sprint finals in the Chinese world championships trials. CAA Sport Science, Beijing, CHN. (unpublished report). (in Chinese)
100mH wF, wH CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
110mH mF, mH CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
400mH mF, mH, wF, wH CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
- 28-Jul **2019 USATF National Championships (Des Moines, IA)**
100mH wF, wH Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
110mH mF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
400mH wF (muhammad) Vazel, P.J. (2019). Statistical analysis and historical context of the new 400H world record. <https://altis.world/articles/statistical-analysis-and-historical-context-of-the-new-400h-world-record/>
wF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 27-Jul **2019 Corporate Team vs College Team (Hiratsukai, JPN)**
100mH wF (terada) TFData-Store (2019.12.20) Retrieved from <http://tfdata-store.com/2019/09/02/post-1606/> (in Japanese)
110mH mF (takayama) TFData-Store (2019.12.20) Retrieved from <http://tfdata-store.com/2019/09/03/post-1615/> (in Japanese)
- 21-Jul **2019 Müller Anniversary Games (London, GBR)**
100m mF (koike) Hayato, O. (2019). Race analysis of men's 100m at major comeptions in 2019. Bulletin of Studies in Athletics of JAAF, 15, p 133. (in Japanese)
400m mF Omega Timing (2019). IAAF diamond league race analysis. (<http://static.sportresult.com/sports/at/data/2018/london/are0040040.pdf>)
100mH wF, wH1 Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
110mH mF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
400mH mF, wF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
mF (200m) Omega Timing (2020) Diamond League Race Analysis. Retrieved from <http://static.sportresult.com/sports/at/data/2019/london/are4270040.pdf>
- 12-Jul **2019 Herculis Meeting International d'Athlétisme (Monaco, MON)**
100m mF Omega Timing (2019). IAAF diamond league race analysis. (<http://static.sportresult.com/sports/at/data/2019/monaco/are0010040.pdf>)
200m wF Omega Timing (2019). IAAF diamond league race analysis. (<http://static.sportresult.com/sports/at/data/2019/monaco/are1020040.pdf>)
400m mF Omega Timing (2019). IAAF diamond league race analysis. (<http://static.sportresult.com/sports/at/data/2019/monaco/are0040040.pdf>)
100mH wF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
400mH wF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
wF (200m) Omega Timing (2020) Diamond League Race Analysis. Retrieved from <http://static.sportresult.com/sports/at/data/2019/monaco/are1270040.pdf>
- 11-Jul **2019 Chinese National Championships (Shenyang, CHN)**
100mH wF, wH, wHept CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
110mH mF, mH, mDec CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
400mH mF, mH, wF, wH CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
- 5-Jul **2019 Athletissima (Lausanne, SUI)**
100m mF Omega Timing (2019). IAAF diamond league race analysis. (<http://static.sportresult.com/sports/at/data/2019/lausanne/are4010040.pdf>)
200m mF, wF Omega Timing (2019). IAAF diamond league race analysis. (<http://static.sportresult.com/sports/at/data/2019/lausanne/are0020040.pdf>) (<http://static.sportresult.com/sports/at/data/2019/lausanne/are5020040.pdf>)
400m wF Omega Timing (2019). IAAF diamond league race analysis. (<http://static.sportresult.com/sports/at/data/2019/lausanne/are1040040.pdf>)

- 110mH mF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH wF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- wF (200m) Omega Timing (2020) Diamond League Race Analysis. Retrieved from <http://static.sportresult.com/sports/at/data/2019/lausanne/are1270040.pdf>
- 30-Jun **2019 Prefontaine Classic (Stanford, CA)**
- 110mH mF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH mF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 30-Jun **2019 Japanese National Championships (Fukuoka, JPN)**
- 100m mF(2), mSF(3) Hayato, O. (2019). Race analysis of men's 100m at major ceptions in 2019. *Bulletin of Studies in Athletics of JAAF*, 15, p 133. (in Japanese)
- wF Takahashi, K. (2019). Running performance analysis of women's 100m of leading sprinters: World, Asia, and Japan. *Bulletin of Studies in Athletics of JAAF*, 15, p 140. (in Japanese)
- 200m mF, wF Yamanaka (2019) - research on athlete performance and technique- 2019 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 103, 104. (in Japanese)
- 400m mF, wF Yamanaka (2019) - research on athlete performance and technique- 2019 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 105, 106. (in Japanese)
- mH, wH Yamanaka, R. (2019) Race analysis of men and women 400m competition. *Bulletin of Studies in Athletics of JAAF*, 15, p 162, 165. (in Japanese)
- 100mH wF Yamanaka (2019) - research on athlete performance and technique- 2019 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 112. (in Japanese)
- 110mH mF Yamanaka (2019) - research on athlete performance and technique- 2019 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 111. (in Japanese)
- 400mH mF, wF Yamanaka (2019) - research on athlete performance and technique- 2019 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 113, 114. (in Japanese)
- 29-Jun **2019 Japan-Korea-China U20 Games (Changsha City, CHN)**
- 100mH wF (fukube) Aoki, H. (2023). Domestic & foreign first-class women's 100m hurdles in the 2022 season. *Bulletin of Studies in Athletics of JAAF*, 18, p 160. (in Japanese)
- 16-Jun **2019 Meeting International Mohammed VI d'Athlétisme (Rabat, MAR)**
- 400m wF Omega Timing (2019). IAAF diamond league race analysis. (<http://static.sportresult.com/sports/at/data/2019/rabat/are1040040.pdf>)
- 110mH mF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 16-Jun **2019 Orlen Janusz Kosuciński Memorial (Chorzów, POL)**
- 400m wF (muhammad) Vazel, P.J. (2019). Statistical analysis and historical context of the new 400H world record. <https://altis.world/articles/statistical-analysis-and-historical-context-of-the-new-400h-world-record/>
- 13-Jun **2019 Bislett Games (Oslo, NOR)**
- 400m mNatF, wNatF Omega Timing (2019). IAAF diamond league race analysis. (<http://static.sportresult.com/sports/at/data/2019/oslo/are6040040.pdf>) (<http://static.sportresult.com/sports/at/data/2019/oslo/are7040040.pdf>)
- 100mH wF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH mF, wF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- mF (200m), wF (200m) Omega Timing (2020) Diamond League Race Analysis. Retrieved from <http://static.sportresult.com/sports/at/data/2019/oslo/are0270040.pdf> <http://static.sportresult.com/sports/at/data/2019/oslo/are1270040.pdf>
- 8-Jun **2019 Japanese National Multi-Event Championships (Nagano, JPN)**
- 100m mDec Matsubayashi (2019) - research on athlete performance and technique- 2019 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 89. (in Japanese)
- 200m wHep Matsubayashi (2019) - research on athlete performance and technique- 2019 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 93. (in Japanese)
- 400m mDec Matsubayashi (2019) - research on athlete performance and technique- 2019 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 90. (in Japanese)
- 100mH wHep Matsubayashi (2019) - research on athlete performance and technique- 2019 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 94. (in Japanese)
- 110mH mDec Matsubayashi (2019) - research on athlete performance and technique- 2019 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 91. (in Japanese)
- 7-Jun **2019 NCAA National Championships (Austin, TX)**
- 100mH wF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 110mH mF, mSF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH mF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 7-Jun **2019 Asian Grand Prix 2 (Chongqing, CHN)**
- 100mH wF CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
- 110mH mF CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
- 6-Jun **2019 Golden Gala Pietro Mennea (Rome, ITA)**

- 200m mF, wF Hirokawa (2019) - research on athlete performance and technique- 2019 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 71, 72. (in Japanese)
- 400m mF Hirokawa (2019) - research on athlete performance and technique- 2019 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 73. (in Japanese)
- 100mH wF Kijima, K. (2019). Race analysis of 100m hurdles of top-ranked women in 2019 major Japanese and international competitions. *Bulletin of Studies in Athletics of JAAF*, 15, p 204. (in Japanese)
- 110mH mF Shibayama, K. (2019). Race analysis of men's 110m hurdles in the 2019 season. *Bulletin of Studies in Athletics of JAAF*, 15, p 219. (in Japanese)
- 400mH mF, wF Hirokawa (2019) - research on athlete performance and technique- 2019 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 74, 75. (in Japanese)
- 18-May **2019 Shanghai Diamond League (Shanghai, CHN)**
- 400m mF, wF Omega Timing (2019). IAAF diamond league race analysis. (<http://static.sportresult.com/sports/at/data/2019/shanghai/are0040040.pdf>) (<http://static.sportresult.com/sports/at/data/2019/shanghai/are1040040.pdf>)
- 110mH mF CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
- 400mH mF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- mF (feng) CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
- mF (200m) Omega Timing (2020) Diamond League Race Analysis. Retrieved from <http://static.sportresult.com/sports/at/data/2019/shanghai/are0270040.pdf>
- 11-May **2019 IAAF World Relays - Shuttle Hurdle Relay (Yokohama, JPN)**
- Shuttle F (CHN) CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
- 11-May **2019 SEC Championships (Fayetteville, AR)**
- 100m mF (sani brown) TFData-Store (2019.12.20) Retrieved from tfdata-store.com/2019/05/19/post-1581/ (in Japanese)
- 110mH mF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 6-May **2019 Kinami Memeorial (Osaka, JPN)**
- 100mH wF Matsubayashi (2019) - research on athlete performance and technique- 2019 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 46. (in Japanese)
- 110mH mF Matsubayashi (2019) - research on athlete performance and technique- 2019 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 45. (in Japanese)
- 400mH mAF, mBF, wAF, wBF Matsubayashi (2019) - research on athlete performance and technique- 2019 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 47, 48. (in Japanese)
- 3-May **2019 Doha Diamond League (Doha, QAT)**
- 400m mNatF Omega Timing (2019). IAAF diamond league race analysis. (<http://static.sportresult.com/sports/at/data/2019/doha/are6040040.pdf>)
- 100mH wF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH wF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- wF (200m) Omega Timing (2020) Diamond League Race Analysis. Retrieved from <http://static.sportresult.com/sports/at/data/2019/doha/are1270040.pdf>
- 3-May **2019 Shizuoka International Athletics Meeting (Fukuroi, JPN)**
- 200m mAF, mBF, mCF, wAF, wBF, wCF Kobayashi (2019) - research on athlete performance and technique- 2019 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 33, 34. (in Japanese)
- 400m mAF, mBF, Kobayashi (2019) - research on athlete performance and technique- 2019 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 35, 36. (in Japanese)
- 400mH mAF, mBF, mCF, mDF, wAF, wBF, wCF Kobayashi (2019) - research on athlete performance and technique- 2019 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 39, 40. (in Japanese)
- 28-Apr **2019 Mikio Oda Memorial (Hiroshima, JPN)**
- 100m mF Hayato, O. (2019). Race analysis of men's 100m at major comeptions in 2019. *Bulletin of Studies in Athletics of JAAF*, 15, p 133. (in Japanese)
- wF Takahashi, K. (2019). Running performance analysis of women's 100m of leading sprinters: World, Asia, and Japan. *Bulletin of Studies in Athletics of JAAF*, 15, p 146. (in Japanese)
- 100mH wAf, wBF Kobayashi (2019) - research on athlete performance and technique- 2019 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 23, 24. (in Japanese)
- 110mH mAF, mBF Kobayashi (2019) - research on athlete performance and technique- 2019 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 21, 22. (in Japanese)
- 24-Apr **2019 Asian Athletics Championships (Doha, QAT)**
- 100m mF Hayato, O. (2019). Race analysis of men's 100m at major comeptions in 2019. *Bulletin of Studies in Athletics of JAAF*, 15, p 133. (in Japanese)
- 200m mF (koike), wH (2) Takahashi, K. (2019). Race analysis of top 200m athletes: Focusing on major domestic and international competitions. *Bulletin of Studies in Athletics of JAAF*, 15, p 154. (in Japanese)
- 400m mF, mSF, wF Yamanaka, R. (2019) Race analysis of men and women 400m competition. *Bulletin of Studies in Athletics of JAAF*, 15, p 159, 164. (in Japanese)
- 100mH wF, wH CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
- 110mH mF, mH (CHN) CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
- 400mH mF (2), mH (CHN), wF (CHN), wH (CHN) CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)

mF (abe) Sugimoto, K. (2020). Race pattern analysis of japan's top male and female 400m hurdlers- 2020 season. *Bulletin of Studies in Athletics of JAAF*, 16, p 167. (in Japanese)

- 13-Apr **2019 Chinese National Grand Prix 2 (Huangshi, CHN)**
 100mH wF, wH CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
 110mH mF, mH CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
 400mH mF, wF, wH CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
- 9-Apr **2019 Chinese National Grand Prix 1 (Zhaoqing, CHN)**
 100mH wF, wH CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
 110mH mF, mH CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
 400mH mF, wF, wH CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
- 20-Mar **2019 Chinese Indoor National Grand Prix Final (Hangzhou, CHN)**
 60mH wAF, wBF CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
 mAF, mBF CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
- 9-Mar **2019 NCAA Indoor Championships (Birmingham, AL)**
 60mH mF, wF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 4-Mar **2019 Chinese Indoor National Grand Prix 4 (Xi'an, CHN)**
 60mH wAF, wBF CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
 mAF, mBF CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
- 28-Feb **2019 Chinese Indoor National Grand Prix 3 (Xi'an, CHN)**
 60mH wAF, wBF CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
 mAF, mBF CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
- 24-Feb **2019 Chinese Indoor National Grand Prix 2 (Nanjing, CHN)**
 60mH wAF, wBF CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
 mAF, mBF CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
- 23-Feb **2019 South Eastern Conference Indoor Championships (Fayetteville, AR)**
 60mH mF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 20-Feb **2019 Chinese Indoor National Grand Prix 1 (Nanjing, CHN)**
 60mH wAF, wBF CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
 mAF, mBF CAA Hurdle Development (2019): Final 2019 year end report (in Chinese)
- 20-Feb **2019 PSD Bank Meeting (Düsseldorf, GER)**
 60mH mF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 16-Feb **2019 Müller Indoor Grand Prix (Birmingham, GBR)**
 60mH mF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 16-Feb **2019 French National Indoor Championships (Miramas, FRA)**
 60mH mF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 8-Feb **2019 Tyson Indoor Invitational (Fayetteville, AR)**
 60mH mF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 1-Feb **2019 ISTAF Indoor (Berlin, GER)**
 60mH wF Henson, T. (2020) Athlete First: 2019 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
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- 21-Oct **2018 Japanese National Junior (U20) Championships (Nagano, JPN)**
 200m mF, wF Ryutaro, H. (2018). research on athlete performance and technique- 2018 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 202-203. (in Japanese)
 400m mF, wF Ryutaro, H. (2018). research on athlete performance and technique- 2018 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 206-207. (in Japanese)
 110mH mF (izumiya) Shibayama, K. (2021). Race analysis of men's 110m hurdles in the 2021 season. *Bulletin of Studies in Athletics of JAAF*, 17, p 153. (in Japanese)
- 21-Oct **2018 Japanese National Youth (U18) Championships (Nagano, JPN)**
 200m mF, wF Ryutaro, H. (2018). research on athlete performance and technique- 2018 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 204-205. (in Japanese)
 400m mF, wF Ryutaro, H. (2018). research on athlete performance and technique- 2018 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 208-209. (in Japanese)
- 8-Oct **2018 National Sports Festival (Fukui, JPN)**
 100m wF, wU20F Takahashi, K. (2019). Running performance analysis of women's 100m of leading sprinters: World, Asia, and Japan. *Bulletin of Studies in Athletics of JAAF*, 15, p 145. (in Japanese)
 400m mF, wF Yamanaka (2018). Race analysis of men and women 400m at 2018 competition. *Bulletin of Studies in Athletics of JAAF*, 14, p 116, 120. (in Japanese)
 mU20F, wU20F Joshi, E. (2018). research on athlete performance and technique- 2018 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 183. (in Japanese)
 100mH wF, wU18F Kota (2018). Analysis of races of leading women's 100m hurdles at home and abroad. *Bulletin of Studies in Athletics of JAAF*, 14, p 150-151. (in Japanese)
 110mH mF Shibayama (2018). Race analysis of men's 110m hurdle run in 2018 season. *Bulletin of Studies in Athletics of JAAF*, 14, p 140. (in Japanese)
 mU20F Joshi, E. (2018). research on athlete performance and technique- 2018 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 179-180. (in Japanese)

- 400mH mF (kajiki), wF (utsunomiya) Morioka (2018). Race pattern analysis of Japan's top 400m hurdles - main national competitions in 2018. *Bulletin of Studies in Athletics of JAAF*, 14, p 159-160. (in Japanese)
- 21-Sep **2018 Japanese Corporate Championships (Osaka, JPN)**
 100m mF Kobayashi (2018). Race analysis results for men 100m in 2018 season. *Bulletin of Studies in Athletics of JAAF*, 14, p 93. (in Japanese)
 wF Takahashi, K. (2019). Running performance analysis of women's 100m of leading sprinters: World, Asia, and Japan. *Bulletin of Studies in Athletics of JAAF*, 15, p 145. (in Japanese)
 200m mF, wF Takahashi (2018). 200m Running Performance Analysis of Top Athletes in 2018. *Bulletin of Studies in Athletics of JAAF*, 14, p 104. (in Japanese)
 400m mF, wF Yamanaka (2018). Race analysis of men and women 400m at 2018 competition. *Bulletin of Studies in Athletics of JAAF*, 14, p 116, 119. (in Japanese)
- 17-Sep **2018 Chinese National Sports School Championships (Jinjiang, CHN) (91.4cm)**
 110mH mF Zhang J. (2019). A comparative analysis of the characteristics of the running time of elite men's 110m hurdles in different age groups in China. (Dissertation) Beijing Sport University, p 50. (in Chinese)
- 16-Sep **2018 Chinese National Championships (Taiyuan, CHN)**
 100mH wF, wH Henson (2018) - coaching observations
 110mH mF, mH Henson (2018) - coaching observations
 400mH mF, mH, wF, wH Henson (2018) - coaching observations
- 9-Sep **2018 IAAF Continental Cup (Ostrava, CZE) (TV Analysis)**
 100mH wF Henson, T. (2021) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
 110mH mF Henson, T. (2021) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
 400mH mF, wF Henson, T. (2021) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 9-Sep **2018 Japanese University National Championships (Nagoya, JPN)**
 110mH mF (izumiya) Shibayama, K. (2021). Race analysis of men's 110m hurdles in the 2021 season. *Bulletin of Studies in Athletics of JAAF*, 17, p 153. (in Japanese)
- 2-Sep **2018 Meeting Città di Padova (Padova, ITA) (TV Analysis)**
 110mH mF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 31-Aug **2018 AG Memorial van Damme (Brussels, BEL) (TV Analysis)**
 100mH wF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
 110mH mF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 30-Aug **2018 Weltklasse (Zürich, SUI)**
 400m mF Omega Timing (2018). IAAF diamond league race analysis. (<http://static.sportresult.com/sports/at/data/2018/zurich/are0040040.pdf>)
 400mH mF, wF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
 mF (200m), wF (200m) Omega Timing (2020) Diamond League Race Analysis. Retrieved from <http://static.sportresult.com/sports/at/data/2018/zurich/are0270040.pdf>
<http://static.sportresult.com/sports/at/data/2018/zurich/are1270040.pdf>
- 26-Aug **2018 Asian Games (Jakarta, INA)**
 100m mF Kobayashi (2018). Race analysis results for men 100m in 2018 season. *Bulletin of Studies in Athletics of JAAF*, 14, p 93. (in Japanese)
 wF Takahashi, K. (2019). Running performance analysis of women's 100m of leading sprinters: World, Asia, and Japan. *Bulletin of Studies in Athletics of JAAF*, 15, p 140. (in Japanese)
 200m mF, wF Takahashi (2018). 200m Running Performance Analysis of Top Athletes in 2018. *Bulletin of Studies in Athletics of JAAF*, 14, p 102. (in Japanese)
 400m mF, mSF, mH, wF Yamanaka (2018). Race analysis of men and women 400m at 2018 competition. *Bulletin of Studies in Athletics of JAAF*, 14, p 115, 119. (in Japanese)
 110mH mF Shibayama (2018). Race analysis of men's 110m hurdle run in 2018 season. *Bulletin of Studies in Athletics of JAAF*, 14, p 139. (in Japanese)
 400mH mF (samba) Zhao W. (2020). Comparative analysis of the kinematic characteristics of Chinese and foreign outstanding men's 400-meter hurdlers. (Dissertation) Nanjing Normal University, p 19, 28-29, 32. (in Chinese)
- 18-Aug **2018 Müller Grand Prix (Birmingham, GBR)**
 400m mF Omega Timing (2018). IAAF diamond league race analysis. (<http://static.sportresult.com/sports/at/data/2018/birmingham/are0040040.pdf>)
 110mH mF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
 400mH wF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 3-Aug **2018 African Championships (Asaba Asaba, NGR)**
 400m wF (semenya) Vazel, P.J. (2018.08.03) Retrieved from <https://twitter.com/pjvazel>
- 3-Aug **2018 Japanese National High School Championships (Nagoya, JPN)**
 100m mF, wF Kota, T., Kazuhito, K., Fukuda, A., Kohei, Y., & Miyashita, T. (2018). 71st high school championships: JAF scientific committee - biomechanics data collection. p. 2, 32. (in Japanese)
 200m mF, wF Kota, T., Kazuhito, K., Fukuda, A., Kohei, Y., & Miyashita, T. (2018). 71st high school championships: JAF scientific committee - biomechanics data collection. p. 5, 35. (in Japanese)

- 400m mF, wF Kota, T., Kazuhito, K., Fukuda, A., Kohei, Y., & Miyashita, T. (2018). 71st high school championships: JAF scientific committee - biomechanics data collection. p. 6, 36. (in Japanese)
- 100mH wF Kota, T., Kazuhito, K., Fukuda, A., Kohei, Y., & Miyashita, T. (2018). 71st high school championships: JAF scientific committee - biomechanics data collection. p. 42. (in Japanese)
- 110mH mF Kota, T., Kazuhito, K., Fukuda, A., Kohei, Y., & Miyashita, T. (2018). 71st high school championships: JAF scientific committee - biomechanics data collection. p. 13. (in Japanese)
- 400mH mF, wF Kota, T., Kazuhito, K., Fukuda, A., Kohei, Y., & Miyashita, T. (2018). 71st high school championships: JAF scientific committee - biomechanics data collection. p. 24, 63. (in Japanese)
- 21-Jul **2018 Müller Anniversary Games (London, GBR)**
- 400m mF, mNatF, wF Omega Timing (2018). IAAF diamond league race analysis. (<http://static.sportresult.com/sports/at/data/2018/london/are0040040.pdf>) (<http://static.sportresult.com/sports/at/data/2018/london/are6040040.pdf>) (<http://static.sportresult.com/sports/at/data/2018/london/are5040040.pdf>)
- 100mH wF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 110mH mF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH mF, wF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 20-Jul **2018 Herculis Meeting International d'Athlétisme (Monaco, MON)**
- 400m wF Vazel, P.J. (2018.08.03) Retrieved from <https://twitter.com/pjvazel>
- 100mH wF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 110mH mF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 15-Jul **2018 IAAF World Junior Championships (Tampere, FIN)**
- 200m mF, mSF, mH, wF Koyama, H. (2018). research on athlete performance and technique- 2018 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 91, 94. (in Japanese)
- 400m mF, mH, wF Koyama, H. (2018). research on athlete performance and technique- 2018 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 96, 98. (in Japanese)
- 100mH wF, wSF2 Kota (2018). Analysis of races of leading women's 100m hurdles at home and abroad. Bulletin of Studies in Athletics of JAAF, 14, p 149. (in Japanese)
- 110mH mF, mH Koyama, H. (2018). research on athlete performance and technique- 2018 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 99. (in Japanese)
- 400mH wF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 13-Jul **2018 Meeting International Mohammed VI d'Athlétisme (Rabat, MAR) (TV Analysis)**
- 100mH wF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 9-Jul **2018 Spitzen Leichtathletik (Luzern, SUI) (TV Analysis)**
- 100mH wF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 5-Jul **2018 Athletissima (Lausanne, SUI) (TV Analysis)**
- 110mH mF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH mF, wF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 2-Jul **2018 István Gyulai Memorial (Székesfehérvár, HUN) (TV Analysis)**
- 110mH mF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 30-Jun **2018 Meeting de Paris (Paris, FRA)**
- 400m wF Omega Timing (2018). IAAF diamond league race analysis. (<http://static.sportresult.com/sports/at/data/2018/paris/are1040040.pdf>)
- 110mH mF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH mF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- mF (200m) Omega Timing (2020) Diamond League Race Analysis. Retrieved from <http://static.sportresult.com/sports/at/data/2018/paris/are0270040.pdf>
- 23-Jun **2018 USATF National Championships (Des Moines, IA) (TV Analysis)**
- 100mH wF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 110mH mF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH wF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 23-Jun **2018 Japanese National Championships (Yamaguchi, JPN)**
- 100m mF Kobayashi (2018). Race analysis results for men 100m in 2018 season. Bulletin of Studies in Athletics of JAAF, 14, p 93. (in Japanese)
- wF Takahashi, K. (2019). Running performance analysis of women's 100m of leading sprinters: World, Asia, and Japan. Bulletin of Studies in Athletics of JAAF, 15, p 144. (in Japanese)

- 200m mF, wF Takahashi (2018). 200m Running Performance Analysis of Top Athletes in 2018. *Bulletin of Studies in Athletics of JAAF*, 14, p 103. (in Japanese)
- 400m mF, mH, wF, wH Yamanaka (2018). Race analysis of men and women 400m at 2018 competition. *Bulletin of Studies in Athletics of JAAF*, 14, p 114, 118. (in Japanese)
- 100mH wF Kota (2018). Analysis of races of leading women's 100m hurdles at home and abroad. *Bulletin of Studies in Athletics of JAAF*, 14, p 148. (in Japanese)
- 110mH mF Shibayama (2018). Race analysis of men's 110m hurdle run in 2018 season. *Bulletin of Studies in Athletics of JAAF*, 14, p 138. (in Japanese)
- 400mH mF, wF Morioka (2018). Race pattern analysis of Japan's top 400m hurdles - main national competitions in 2018. *Bulletin of Studies in Athletics of JAAF*, 14, p 158-159. (in Japanese)
- 19-Jun **2018 Meeting International de Montreuil (Montreuil, FRA) (TV Analysis)**
- 110mH mF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 17-Jun **2018 National Grand Prix Final (Guiyang, CHN) (Altitude)**
- 110mH mF Zhang J. (2019). A comparative analysis of the characteristics of the running time of elite men's 110m hurdles in different age groups in China. (Dissertation) Beijing Sport University, p 51. (in Chinese)
- 16-Jun **2018 Japanese National Multi-Event Championships (Nagano, JPN)**
- 100m mDec Matsubayashi, T. (2018). research on athlete performance and technique- 2018 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 61. (in Japanese)
- 200m wHept Matsubayashi, T. (2018). research on athlete performance and technique- 2018 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 65. (in Japanese)
- 400m mDec Matsubayashi, T. (2018). research on athlete performance and technique- 2018 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 62. (in Japanese)
- 100mH wHept Matsubayashi, T. (2018). research on athlete performance and technique- 2018 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 66. (in Japanese)
- 110mH mDec Matsubayashi, T. (2018). research on athlete performance and technique- 2018 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 63. (in Japanese)
- 10-Jun **2018 Bauhaus Galan (Stockholm, SWE)**
- 400m wF Omega Timing (2018). IAAF diamond league race analysis. (<http://static.sportresult.com/sports/at/data/2018/stockholm/are1040040.pdf>)
- 100mH wF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH mF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 9-Jun **2018 NCAA Championships (Eugene, OR) (TV Analysis)**
- 100mH wF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 110mH mF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH mF, wF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 7-Jun **2018 Bislett Games (Oslo, NOR)**
- 400m wF Omega Timing (2018). IAAF diamond league race analysis. (<http://static.sportresult.com/sports/at/data/2018/oslo/are1040040.pdf>)
- 100mH wF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH mF, wF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- mF (200m), wF (200m) Omega Timing (2020) Diamond League Race Analysis. Retrieved from <http://static.sportresult.com/sports/at/data/2018/oslo/are0270040.pdf>
<http://static.sportresult.com/sports/at/data/2018/oslo/are1270040.pdf>
- 3-Jun **2018 Fuse Sprint (Tottori, JPN)**
- 100m mF Kobayashi (2018). Race analysis results for men 100m in 2018 season. *Bulletin of Studies in Athletics of JAAF*, 14, p 93. (in Japanese)
- wF Takahashi, K. (2019). Running performance analysis of women's 100m of leading sprinters: World, Asia, and Japan. *Bulletin of Studies in Athletics of JAAF*, 15, p 144. (in Japanese)
- 100mH wF Kota (2018). Analysis of races of leading women's 100m hurdles at home and abroad. *Bulletin of Studies in Athletics of JAAF*, 14, p 147. (in Japanese)
- 110mH mF Shibayama (2018). Race analysis of men's 110m hurdle run in 2018 season. *Bulletin of Studies in Athletics of JAAF*, 14, p 137. (in Japanese)
- 31-May **2018 Leise Prokop Memorial (St. Pölten, AUT) (TV Analysis)**
- 100mH wF, wH (talay) Henson, T. (2021) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 31-May **2018 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)**
- 100mH wF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH mF, wF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 27-May **2018 Shimane High School Championships (Izumo, JPN)**
- 100m mF, wF Shimizu, Y. (2018). Shimane high school championships 2018, Biomechanics data analysis. p. 3 & 5. (in Japanese). Retrieved from <https://data.pc-egg.com/system/uploads/files/000/070/625/県高校総体2018データ最終報告.pdf>

- 200m mF, wF Shimizu, Y. (2018). Shimane high school championships 2018, Biomechanics data analysis. p. 6-7. (in Japanese). Retrieved from <https://data.pc-egg.com/system/uploads/files/000/070/625/県高校総体2018データ最終報告.pdf>
- 400m mF, wF Shimizu, Y. (2018). Shimane high school championships 2018, Biomechanics data analysis. p. 8 & 10. (in Japanese). Retrieved from <https://data.pc-egg.com/system/uploads/files/000/070/625/県高校総体2018データ最終報告.pdf>
- 100mH wF Shimizu, Y. (2018). Shimane high school championships 2018, Biomechanics data analysis. p. 14. (in Japanese). Retrieved from <https://data.pc-egg.com/system/uploads/files/000/070/625/県高校総体2018データ最終報告.pdf>
- 110mH mF Shimizu, Y. (2018). Shimane high school championships 2018, Biomechanics data analysis. p. 16. (in Japanese). Retrieved from <https://data.pc-egg.com/system/uploads/files/000/070/625/県高校総体2018データ最終報告.pdf>
- 400mH mF, wF Shimizu, Y. (2018). Shimane high school championships 2018, Biomechanics data analysis. p. 18 & 20. (in Japanese). Retrieved from <https://data.pc-egg.com/system/uploads/files/000/070/625/県高校総体2018データ最終報告.pdf>
- 26-May **2019 Prefontaine Classic (Eugene, OR) (TV Analysis)**
- 110mH mF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH wF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 20-May **2018 Seiko Golden Grand Prix (Osaka, JPN)**
- 100m mF Kobayashi (2018). Race analysis results for men 100m in 2018 season. Bulletin of Studies in Athletics of JAAF, 14, p 93. (in Japanese)
- wF Takahashi, K. (2019). Running performance analysis of women's 100m of leading sprinters: World, Asia, and Japan. Bulletin of Studies in Athletics of JAAF, 15, p 143. (in Japanese)
- 200m mF Takahashi (2018). 200m Running Performance Analysis of Top Athletes in 2018. Bulletin of Studies in Athletics of JAAF, 14, p 101. (in Japanese)
- 400m mF, wF Yamanaka (2018). Race analysis of men and women 400m at 2018 competition. Bulletin of Studies in Athletics of JAAF, 14, p 113, 117. (in Japanese)
- 100mH wF Kota (2018). Analysis of races of leading women's 100m hurdles at home and abroad. Bulletin of Studies in Athletics of JAAF, 14, p 146. (in Japanese)
- 110mH mF Shibayama (2018). Race analysis of men's 110m hurdle run in 2018 season. Bulletin of Studies in Athletics of JAAF, 14, p 136. (in Japanese)
- 400mH mF Morioka (2018). Race pattern analysis of Japan's top 400m hurdles - main national competitions in 2018. Bulletin of Studies in Athletics of JAAF, 14, p 158. (in Japanese)
- 17-May **2018 Chinese National U18 Championships (Jinzhou, CHN) (99.1cm)**
- 110mH mF Zhang J. (2019). A comparative analysis of the characteristics of the running time of elite men's 110m hurdles in different age groups in China. (Dissertation) Beijing Sport University, p 50. (in Chinese)
- 13-May **2018 South Eastern Conference Championships (Knoxville, TN) (TV Analysis)**
- 100mH wF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH wF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 13-May **2018 Chinese National U20 Championships (Nanchang, CHN) (99.1cm)**
- 110mH mF Zhang J. (2019). A comparative analysis of the characteristics of the running time of elite men's 110m hurdles in different age groups in China. (Dissertation) Beijing Sport University, p 51. (in Chinese)
- 12-May **2018 Shanghai Diamond League (Shanghai, CHN) (TV Analysis)**
- 100mH wF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 110mH mF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH wF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 6-May **2018 Kinami Michitaka Memorial (Osaka, JPN)**
- 100mH wF Kota (2018). Analysis of races of leading women's 100m hurdles at home and abroad. Bulletin of Studies in Athletics of JAAF, 14, p 145. (in Japanese)
- 110mH mF Shibayama (2018). Race analysis of men's 110m hurdle run in 2018 season. Bulletin of Studies in Athletics of JAAF, 14, p 135. (in Japanese)
- 4-May **2018 Doha Diamond League (Doha, QAT) (TV Analysis)**
- 100mH wF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH mF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 3-May **2018 Shizuoka International Meeting (Fukuroi, JPN)**
- 200m mF, wF Takahashi (2018). 200m Running Performance Analysis of Top Athletes in 2018. Bulletin of Studies in Athletics of JAAF, 14, p 100. (in Japanese)
- mB, mH, wB, wF Ryutaro, H. (2018). research on athlete performance and technique- 2018 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 34. (in Japanese)
- 400m mF, mB, wF Yamanaka (2018). Race analysis of men and women 400m at 2018 competition. Bulletin of Studies in Athletics of JAAF, 14, p 113, 117. (in Japanese)
- 400mH mF, mB, mC Morioka (2018). Race pattern analysis of Japan's top 400m hurdles - main national competitions in 2018. Bulletin of Studies in Athletics of JAAF, 14, p 157. (in Japanese)

- 29-Apr **2018 Mikio Oda Memorial (Hiroshima, JPN)**
 100m mAF, mBF, Kobayashi (2018). Race analysis results for men 100m in 2018 season. *Bulletin of Studies in Athletics of JAAF*, 14, p 93. (in Japanese)
 wF Takahashi, K. (2019). Running performance analysis of women's 100m of leading sprinters: World, Asia, and Japan. *Bulletin of Studies in Athletics of JAAF*, 15, p 143. (in Japanese)
 100mH wF Kota (2018). Analysis of races of leading women's 100m hurdles at home and abroad. *Bulletin of Studies in Athletics of JAAF*, 14, p 144. (in Japanese)
 110mH mF Shibayama (2018). Race analysis of men's 110m hurdle run in 2018 season. *Bulletin of Studies in Athletics of JAAF*, 14, p 134. (in Japanese)
 mH (furuya) Touchdown_Time (2018.05.01). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 27-Apr **2018 National Relay Championships (Fayetteville, AR) (TV Analysis)**
 400mH wAF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 21-Apr **2018 Tokyo Combined Event Meeting (Tokyo, JPN)**
 100m mDec Matsubayashi, T. (2018). research on athlete performance and technique- 2018 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 7. (in Japanese)
 200m wHept Matsubayashi, T. (2018). research on athlete performance and technique- 2018 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 11. (in Japanese)
 400m mDec Matsubayashi, T. (2018). research on athlete performance and technique- 2018 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 8. (in Japanese)
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 110mH mDec Matsubayashi, T. (2018). research on athlete performance and technique- 2018 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 9. (in Japanese)
- 12-Apr **2018 Commonwealth Games (Gold Coast, AUS) (TV Analysis)**
 400mH mF Henson, T. (2020) Athlete First: 2018 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 3-Mar **2018 IAAF World Indoor Championships (Birmingham, GBR)**
 60mH wF Walker, J., Pollitt, L., Paradisis, G.P., Besodis, I., Bissas, A. and Merlino, S. (2019). Biomechanical Report for the IAAF World Indoor Championships 2018: 60 Metres Hurdles Women. Birmingham, UK: International Association of Athletics Federations. p. 32.
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- 25-Feb **2018 Müller Indoor Grand Prix (Glasgow, GBR)**
 110mH mF Touchdown_Time (2018.03.04). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 16-Feb **2018 Australian Athletics Championships (Gold Coast, AUS)**
 100m mF Browning, Rohan (2018.02.26). Retrieved from twitter.com/Rohan_Browning
- 3-Feb **2018 Japanese National Indoor U20 Championships (Osaka, JPN) (0.99m)**
 110mH mF Touchdown_Time (2018.03.04). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
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- 20-Oct **2017 Japanese U20 National Championships (Nagoya, JPN)**
 100m wF (kodama) Takahashi, W., (2021). Race analysis of 100m women's athletes in major domestic competitions, focusing on Mei Kodama. *Bulletin of Studies in Athletics of JAAF*, 17, p 114. (in Japanese)
- 9-Oct **2017 National Sports Festival (Matsuyama, JPN)**
 100m mF, mSF, wF, wSF Matsuo (2017). Race analysis of the men's and women's 100m in the 2017 season. *Bulletin of Studies in Athletics of JAAF*, 13, p 162-163. (in Japanese)
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 mF, wF Yamanaka (2017). Male and female 400m analysis in the 2017 season. *Bulletin of Studies in Athletics of JAAF*, 13, p 178, 182. (in Japanese)
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 400mH mF (kishimoto) Morioka (2018). Analysis of the race patterns of the top 400m hurdles in Japan. *Bulletin of Studies in Athletics of JAAF*, 14, p 156. (in Japanese)
- 24-Sep **2017 All Japan Corporate Championships (Osaka, JPN)**
 400m mF, wF TFData-Store (2017.10.05) Retrieved from tfd-data-store.com/2017/10/05/post-1097/ (in Japanese)
- 9-Sep **2017 Japanese Inter-Collegiate Championships (Fukui JPN)**
 100m mF (kiryu) Kobayashi (2017). 100m race patterns of Yoshihide Kiryu in his history attaining 9.98 seconds. *Bulletin of Studies in Athletics of JAAF*, 13, p 111. (in Japanese)
- 5-Sep **2017 National Games (Tianjin, CHN)**
 100m mF Jiang, Z., Yuan, T., Wang, G., & Li, Q. (2018). Study on the key technical characteristics of men's 100m finalists in 2017 National Games. *China Sport Science and Technology*. 54 (6). p114. (in Chinese)
 200m mF Jiang Z. (2017.09.05) Retrieved from <https://twitter.com/pjvazel>
 400m mF (guo) Xu J. (2018). A comparative analysis of the athletic characteristics of Guo Zhongze and Van Niekerk's 400-meter running. *Social Science II*, p13. (in Chinese)

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- 100mH wF, wH (wu) Henson, T. (2017). *Coaching observations at the 2017 Chinese National Games*
- 110mH mF Henson, T. (2017). *Coaching observations at the 2017 Chinese National Games*
- 400mH mF Wang G.. (2020). *Comparative analysis of the pre-competitive training characteristics of the top eight athletes in the men's 400-meter hurdles at the 13th National Games*. (Dissertation) China University of Mining and Technology, p 21, 44. (in Chinese)
- 1-Sep **2017 Memorial van Damme (Brussels, BEL)**
- 400m wF Omega Timing (2017). *IAAF diamond league race analysis*. (<https://static.sportresult.com/sports/at/data/2017/brussels/are1040040.pdf>)
- 110mH mF Henson, T. (2020) *Athlete First: 2017 year end hurdle report*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH wF Henson, T. (2020) *Athlete First: 2017 year end hurdle report*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- wF (200m) Omega Timing (2020) *Diamond League Race Analysis*. Retrieved from <https://static.sportresult.com/sports/at/data/2017/brussels/are1270040.pdf>
- 24-Aug **2017 Weltklasse (Zürich, SUI)**
- 200m wF (miller-uibo) Touchdown_Time (2017.08.25). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 100mH wF Henson, T. (2020) *Athlete First: 2017 year end hurdle report*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH mF, wF Henson, T. (2020) *Athlete First: 2017 year end hurdle report*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 20-Aug **2017 Müller Grand Prix (Birmingham, GBR)**
- 110mH mF Henson, T. (2020) *Athlete First: 2017 year end hurdle report*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- wF Henson, T. (2021) *Athlete First: 2017 year end hurdle report*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 5-Aug **2017 IAAF World Championships (London, GBR)**
- 100m mF Leeds Beckett Univ. (2017). *Preliminary analysis of the men's 100m final. Biomechanical report for the IAAF world championships: London 2017: Women's 100m*. Leeds Beckett University, London, GBR. p3.
- wF Bissas, A., Walker, J., Tucker, C., Paradisis, G., & Merlino, S. (2018). *Biomechanical report for the IAAF world championships: London 2017: Women's 100m*. Leeds Beckett University, London, GBR. p11.
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- 200m mF, mSF Pollitt, L., Walker, J., Tucker, C., Bissas, A., & Merlino, S. (2018). *Biomechanical report for the IAAF world championships: London 2017: Men's 200m*. Leeds Beckett University, London, GBR. p9-10.
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- 400m mF Yamanaka (2017). *Male and female 400m analysis in the 2017 season*. *Bulletin of Studies in Athletics of JAAF*, 13, p 179. (in Japanese)
- mSF Pollitt, L., Walker, J., Tucker, C., Bissas, A., & Merlino, S. (2018). *Biomechanical report for the IAAF world championships: London 2017: Men's 400m*. Leeds Beckett University, London, GBR. p10-11.
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- 100mH wF, wSF Pollitt, L., Walker, J., Bissas, A., & Merlino, S. (2018). *Biomechanical report for the IAAF world championships: London 2017: Women's 100m Hurdles*. Leeds Beckett University, London, GBR. p12-13.
- 110mH mF, mSF Pollitt, L., Walker, J., Tucker, C., Bissas, A., & Merlino, S. (2018). *Biomechanical report for the IAAF world championships: London 2017: Men's 110m Hurdles*. Leeds Beckett University, London, GBR. p12-13.
- 400mH mF, wF Henson, T. (2020) *Athlete First: 2017 year end hurdle report*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- mSF2, mH1 (abe) Morioka (2018). *Analysis of the race patterns of the top 400m hurdles in Japan*. *Bulletin of Studies in Athletics of JAAF*, 14, p 155. (in Japanese)
- 1-Aug **2017 Japanese National High School Championships (Yamagata, JPN)**
- 100m mF, wF Kota, T., Kazuhito, K., Watanabe, A., Fukuda, A., Kawabata, R., Kohei, Y., Takashi, W., Katsuhiro, O. & Hinokawa. (2017). *70th high school championships: JAF scientific committee - biomechanics data collection*. p. 4, 43. (in Japanese)
- 200m mF, wF Kota, T., Kazuhito, K., Watanabe, A., Fukuda, A., Kawabata, R., Kohei, Y., Takashi, W., Katsuhiro, O. & Hinokawa. (2017). *70th high school championships: JAF scientific committee - biomechanics data collection*. p. 8, 47. (in Japanese)
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- 30-Jul **2017 Windsprint (Sundsvall, SWE)**
 100m mA, mB, mC, mD, wA, wB Andersson, H.(2017) Windsprint 2017 Splittider. Retrieved from www.windsprint/Splittider/ (in Swedish)
 100mH wF, wF2 Andersson, H.(2017) Windsprint 2017 Splittider. Retrieved from www.windsprint/Splittider/ (in Swedish)
 110mH mF, mF2 Andersson, H.(2017) Windsprint 2017 Splittider. Retrieved from www.windsprint/Splittider/ (in Swedish)
 100mH wF, wF2 Andersson, H.(2017) Windsprint 2017 Splittider. Retrieved from www.windsprint/Splittider/ (in Swedish)
- 23-Jul **2017 European U20 Championships (Grosseto, ITA)**
 400mH mF Henson, T. (2020) Athlete First: 2017 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 22-Jul **2017 All Star Night (Hiratsuka, JPN)**
 110mH mF TFData-Store (2017.07.26) Retrieved from tfdata-store.com/2017/07/26/post-1072/ (in Japanese)
- 21-Jul **2017 Herculis Meeting International d'Athlétisme (Monaco, MON)**
 400m mF Touchdown_Time (2017.07.21). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
 100mH wF Henson, T. (2020) Athlete First: 2017 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
 400mH wF Henson, T. (2020) Athlete First: 2017 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 18-Jul **2017 Galà dei Castelli (Bellinzona, SUI)**
 110mH mF Touchdown_Time (2017.07.18). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 16-Jul **2017 Meeting International Mohammed VI D'Athlétisme (Rabat, MAR) (TV Analysis)**
 400mH wF Henson, T. (2021) Athlete First: 2017 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 11-Jul **2017 Spitzen Leichtathletik (Luzern, SUI)**
 110mH mF Touchdown_Time (2017.07.11). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 9-Jul **2017 Nanbu Memorial Meeting (Sapporo, JPN)**
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 110mH mF TFData-Store (2017.07.12) Retrieved from tfdata-store.com/2017/07/12/post-1025/ (in Japanese)
 400mH mF TFData-Store (2017.07.11) Retrieved from tfdata-store.com/2017/07/11/post-1019/ (in Japanese)
- 9-Jul **2017 Müller's Anniversary Games (London, GBR)**
 100mH wF Henson, T. (2020) Athlete First: 2017 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
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 400mH mF Henson, T. (2020) Athlete First: 2017 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 6-Jul **2017 Athletissima (Lausanne, SUI)**
 400m mF (van niekerk) Škraba, Z.P. (2017). Wayde van Niekerk's 400m races in Lausanne & Monaco: Splits & strides. Retrieved from <https://zigapskraba.com/2017/07/23/wayde-van-niekerks-400m-races-in-lausanne-monaco-splits-strides/>
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 100mH wF Henson, T. (2020) Athlete First: 2017 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
 400mH mF Henson, T. (2020) Athlete First: 2017 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
 wF Henson, T. (2021) Athlete First: 2017 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 4-Jul **2017 István Gyulai Memorial (Székesfehérvár, HUN)**
 100mH wF Henson, T. (2020) Athlete First: 2017 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
 110mH mF Henson, T. (2020) Athlete First: 2017 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 1-Jul **2017 Meeting de Paris (Paris, FRA)**
 400m wF Omega Timing (2017). IAAF diamond league race analysis. (<http://static.sportresult.com/sports/at/data/2017/paris/are1040040.pdf>)
 110mH mF Henson, T. (2020) Athlete First: 2017 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 28-Jun **2017 Golden Spike (Ostrava, CZE)**
 300m mF Touchdown_Time (2017.07.01). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
 110mH mF Henson, T. (2020) Athlete First: 2017 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 25-Jun **2017 National Grand Prix Final (Guiyang, CHN) (Altitude)**
 100m wH Jiang Z. (2017) CAA Sport Science
- 24-Jun **2017 USATF National Championships (Sacramento, CA)**
 100m

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- 24-Jun **2017 Jamaican National Championships (Kingston, JAM)**
- 110mH mF Henson, T. (2020) Athlete First: 2017 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
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- wSF (shimura) Touchdown_Time (2017.07.20). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- wSF (kimura) Touchdown_Time (2017.06.24). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 110mH mF, mSF, mH TFData-Store (2017.07.13) Retrieved from tfdata-store.com/2017/07/13/post-1040/ (in Japanese)
- 400mH mF, wF (aoki) Morioka (2018). Analysis of the race patterns of the top 400m hurdles in Japan. *Bulletin of Studies in Athletics of JAAF*, 14, p 154-155. (in Japanese)
- 18-Jun **2017 Bauhaus Athletics (Stockholm, SWE)**
- 110mH mF Henson, T. (2020) Athlete First: 2017 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH mF Henson, T. (2020) Athlete First: 2017 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 27-May **2017 Shimane High School Championships (Izumo, JPN)**
- 100m mF, wF Shimizu, Y. (2018). Shimane high school championships 2018, Biomechanics data analysis. p. 3 & 5. (in Japanese). Retrieved from <https://data.pc-egg.com/system/uploads/files/000/070/625/県高校総体2018データ最終報告.pdf>
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- 20-May **2017 Bislett Games (Oslo, NOR)**
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- 400mH mF Henson, T. (2020) Athlete First: 2017 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 9-Jun **2017 NCAA Championships (Eugene, OR)**
- 200m wF USTFCCCA (2017). NCAA Division I outdoor national championship history. p317. Retrieved from: <http://www.usfccca.org/assets/record-book/ncaa-division-i-outdoor-track/NCAA-DI-OTF-Event-YearByYearResults.pdf>
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- 8-Jun **2017 Golden Gala Pietro Mennea (Rome, ITA)**
- 110mH mF Henson, T. (2020) Athlete First: 2017 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH wF Henson, T. (2020) Athlete First: 2017 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 4-Jun **2017 Fuse Sprint (Tottori, JPN)**

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- 2-Jun **2017 Korean National Championships (Kimchun, KOR)**
110mH mF Hong, S.H. & Ryu, J.K. (2018) - performance analysis of men's 110m hurdles using rhythmic units. *Korean Journal of Sport Biomechanics*, 28(2), p. 81.
- 28-May **2017 Luca Coscioni Memorial (Orvieto, ITA)**
400m wF (hooper) Tozzi (2017) - FIDAL - analisi gloria hooper, 25 maggio Orvieto (in Italian)
- 17-May **2017 Prefontaine Classic (Eugene, OR)**
100mH wF Henson, T. (2020) Athlete First: 2017 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
110mH mF Henson, T. (2020) Athlete First: 2017 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
400mH wF Henson, T. (2020) Athlete First: 2017 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 26-May **2017 NCAA Championships - West Preliminary (Austin, TX)**
400m mQF (kerley) Vazel, P.-J. (2018). Men's 400m: Historical analysis and coaching commentary. In Pollitt, L., Walker, J., Tucker, C., Bissas, A., & Merlino, S. (Eds). *Biomechanical report for the IAAF world championships: London 2017*. Leeds Beckett University, London, GBR. p48.
- 26-May **2017 Kanto Collegiate Championships (Yokohama, JPN)**
400m mFD1, mFD2, wFD1, mSFD1, mSFD2, wSFD1 TFData-Store (2017.06.01) Retrieved from tfd-data-store.com/2017/06/01/post-786/ (in Japanese)
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110mH mFD1 (kanai) TFData-Store (2017.06.08) Retrieved from tfd-data-store.com/2017/06/08/post-914/ (in Japanese)
- 21-May **2017 Seiko Golden Grand Prix (Kawasaki, JPN)**
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- 21-May **2017 Gunma High School Athletics Meeting (Maebashi, JPN)**
400mH mF (shirao) TFData-Store (2017.05.20) Retrieved from tfd-data-store.com/2017/05/20/post-584/ (in Japanese)
- 20-May **2017 Jamaica International Invitational (Kingston, JAM)**
400mH mF Henson, T. (2020) Athlete First: 2017 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 20-May **2017 East Japan Business Athletics Championships (Yuma, JPN)**
110mH mF TFData-Store (2017.05.20) Retrieved from tfd-data-store.com/2017/05/20/post-579/ (in Japanese)
- 14-May **2017 Tokyo High School Championships (Tokyo, JPN)**
400mH mF (inoue) TFData-Store (2017.05.14) Retrieved from tfd-data-store.com/2017/05/14/post-470/ (in Japanese)
- 13-May **2017 Shanghai Diamond League (Shanghai, CHN)**
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- 11-May **2017 Kansai Regional University Championships (Osaka, JPN)**
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110mH mF TFData-Store (2017.05.13) Retrieved from tfd-data-store.com/2017/05/13/post-441/ (in Japanese)
- 7-May **2017 Michitaka Memorial (Osaka, JPN)**
100mH wF, wFOp TFData-Store (2017.05.08) Retrieved from tfd-data-store.com/2017/05/08/post-413/ (in Japanese)
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- 5-May **2017 Doha Diamond League (Doha, QAT)**
100mH wF Henson, T. (2020) Athlete First: 2017 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
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- 5-May **2017 Mito Invitational (Mito, JPN)**
100mH wF, wH TFData-Store (2017.05.06) Retrieved from tfd-data-store.com/2017/05/06/post-423/ (in Japanese)
110mH mF, mH TFData-Store (2017.05.06) Retrieved from tfd-data-store.com/2017/05/06/post-423/ (in Japanese)
- 3-May **2017 Shizuoka International Meeting (Fukuroi, JPN)**
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- 29-Apr **2017 Mikio Oda Memorial (Hiroshima, JPN)**
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 110mH mF, mB TFData-Store (2017.05.01) Retrieved from tfd-data-store.com/2017/05/01/post-458/ (in Japanese)
- 23-Apr **2017 Izumo Athletics Games (Izumo, JPN)**
 300m mF, wF TFData-Store (2017.05.17) Retrieved from tfd-data-store.com/2017/05/17/post-537/ (in Japanese)
- 9-Apr **2017 Kyoto University Meeting (Kyoto, JPN)**
 110mH mF TFData-Store (2017.04.12) Retrieved from tfd-data-store.com/2017/04/12/post-362/ (in Japanese)
- 8-Apr **2017 Tokyo Six School Meeting (Tokyo, JPN)**
 110mH mF, mH TFData-Store (2017.04.10) Retrieved from tfd-data-store.com/2017/04/10/post-342/ (in Japanese)
- 8-Apr **2017 Tokushima Athletics Carnival (Naruto, JPN)**
 110mH mF (omoro) TFData-Store (2017.04.09) Retrieved from tfd-data-store.com/2017/04/09/post-285/ (in Japanese)
- 6-Apr **2017 Osaka University Athletics Championships (Osaka, JPN)**
 400m mF, wF TFData-Store (2017.04.07) Retrieved from tfd-data-store.com/2017/04/07/post-249/ (in Japanese)
 100mH wF TFData-Store (2017.04.07) Retrieved from tfd-data-store.com/2017/04/07/post-249/ (in Japanese)
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 400mH wF Touchdown_Time (2017.04.13). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 28-Mar **2017 North-West University Pukke Invitational (Sasolburg, RSA)**
 400mH mF Henson, T. (2020) Athlete First: 2017 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 11-Mar **2017 SummerOfAths Grand Prix (Canberra, AUS)**
 100m mF, mB, mC TFData-Store (2017.03.12) Retrieved from tfd-data-store.com/2017/03/12/post-46/ (in Japanese)
- 3-Mar **2017 European Indoor Championships (Beograd, SRB)**
 60mH mF, wF (roleder) Touchdown_Time (2017.03.05). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
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- 4-Feb **2017 Karlsruhe Indoor (Karlsruhe, GER)**
 60mH wF (harrison) Touchdown_Time (2017.02.10). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
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 60mH mF, wF (tanaka) Touchdown_Time (2017.02.04). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 21-Jan **2017 Rod McCravy Memorial (Lexington, KY)**
 60mH wF (harrison) Touchdown_Time (2017.01.28). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
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- 3-Nov **2016 West Japan Carnival (Kita-Kyushu, JPN)**
 110mH mF, mH Touchdown_Time (2016.11.07). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 30-Oct **2016 Japanese Junior Olympics (Yokohama, JPN) (A - 0.99m) (B - 0.91m)**
 100mH wF"B" Touchdown_Time (2016.10.30). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
 wH4"B" Touchdown_Time (2016.10.29). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
 wF"A" Touchdown_Time (2016.10.28). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
 wH3"A" Touchdown_Time (2016.10.27). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
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- 23-Oct **2016 Tashima Memorial (Yamaguchi, JPN)**
 110mH mF (omuro) Touchdown_Time (2016.10.26). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 21-Oct **2016 Japanese National Junior Championships (Mizuho, JPN)**
 400m mF, wF Yamamoto (2016). Race analysis of male & female 400m runners at major competitions in 2016. *Bulletin of Studies in Athletics of JAAF*, 12, p 100-101. (in Japanese)
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- wH6 Touchdown_Time (2016.11.03). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
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- wH Touchdown_Time (2016.11.01). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 110mH mF (kato) Touchdown_Time (2016.10.21). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 21-Oct **2016 Japanese National Youth Championships (Mizuho, JPN)**
- 400m mF, wF Yamamoto (2016). Race analysis of male & female 400m runners at major competitions in 2016. *Bulletin of Studies in Athletics of JAAF*, 12, p 100-101. (in Japanese)
- 100mH wF (yuidori) Touchdown_Time (2016.10.25). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
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- 400mH mH Touchdown_Time (2016.11.17). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 19-Oct **2016 Kansai Student Athletics Championships (Osaka, JPN)**
- 100mH wF (yamanaka) Touchdown_Time (2016.10.20). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 110mH mF (hatanaka) Touchdown_Time (2016.10.20). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 15-Oct **2016 China Perfecture High School Championships (Izumo, JPN)**
- 110mH mF (fukumoto) Touchdown_Time (2016.10.16). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 10-Oct **2016 National Sports Festival (Kitakami, JPN)**
- 100m wF, wFU19 Matsuo (2016). Speed, frequency, and stride analysis of male & female 100m sprinters. *Bulletin of Studies in Athletics of JAAF*, 12, p 79. (in Japanese)
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- 110mH mF (yazawa) Touchdown_Time (2016.10.11). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 400mH mFU19 (inoue) TFData-Store (2017.05.14) Retrieved from tdata-store.com/2017/05/14/post-470/ (in Japanese)
- 9-Oct **2016 Tokai Student Autumn Championships (Gifu, JPN)**
- 100mH wF (fujiwara) Touchdown_Time (2016.10.10). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 110mH mF (yamamoto) Touchdown_Time (2016.10.10). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 25-Sep **2016 Japanese National Corporate Championships (Osaka, JPN)**
- 100mH wF Touchdown_Time (2016.09.28). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 110mH mF (yazawa) Touchdown_Time (2016.09.28). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 24-Sep **2016 Gunma Perfecture High School Championships (Gunma, JPN)**
- 100mH wF (ukiya) Touchdown_Time (2016.09.25). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 110mH mF (sekiguchi) Touchdown_Time (2016.09.25). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 22-Sep **2016 Chiba Perfecture High School Championships (Chiba, JPN)**
- 100mH wF (shinga) Touchdown_Time (2016.09.26). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 110mH mF (shinyo) Touchdown_Time (2016.09.25). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 17-Sep **2016 Kanto Student Championships (Sagamihara, JPN)**
- 100mH wF Touchdown_Time (2016.09.17). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 110mH mF Touchdown_Time (2016.09.17). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 16-Sep **2016 Miyazaki Perfecture High School Championships (Miyazaki, JPN)**

- 100mH wF (koto) Touchdown_Time (2016.10.26). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 110mH mF (yuuto) Touchdown_Time (2016.10.26). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 15-Sep **2016 Chinese National Championships (Tianjin, CHN)**
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- 9-Sep **2016 Memorial van Damme (Brussels, BEL) (TV Analysis)**
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- 4-Sep **2016 Japanese University Championships (Kumagaya, JPN)**
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- 1-Sep **2016 Weltklasse (Zürich, SUI)**
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wF Henson, T. (2021) Athlete First: 2016 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 27-Aug **2016 Meeting Paris (Saint-Denis, FRA)**
100mH wF Henson, T. (2020) Athlete First: 2016 Kendra Harrison world record season. Retrieved from <http://www.athetefirst.org> (TV Analysis)
400mH mF Henson, T. (2020) Athlete First: 2016 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 27-Aug **2016 Kyushu Championships (Kita-Kyushu, JPN)**
110mH mF (nishi) Touchdown_Time (2016.08.30). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 25-Aug **2016 Athletissime (Luassane, SUI)**
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110mH mF Henson, T. (2020) Athlete First: 2016 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
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- 18-Aug **2016 Olympic Games (Rio de Janeiro, BRA)**
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wF Henson, T. (2021) Athlete First: 2016 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 31-Jul **2016 Windsprint (Sundsvall, SWE)**
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- 30-Jul **2016 Japanese National High School Championships (Okayama, JPN)**
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- 23-Jul **2016 Spanish National Championships (Gijón, ESP) (TV Analysis)**
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- 23-Jul **2016 All-Star Night Athletics (Hiratsuka, JPN)**
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- 22-Jul **2016 IAAF World Junior Championships (Bydgoszcz, POL)**
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110mH mF (furuuya) Touchdown_Time (2016.07.24). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 22-Jul **2016 London Anniversary Games (London, GBR)**
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- 17-Jul **2016 Six College Meeting (Sagamihara, JPN)**
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- 15-Jul **2016 Herculis Meeting International d'Athlétisme (Monaco, MON) (TV Analysis)**
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- 9-Jul **2016 USA Olympic Trials (Eugene, OR)**
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- 9-Jul **2016 European Championships (Amsterdam, NED)**
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- 2-Jul **2016 Jamaican National Championships (Kingston, JAM) (TV Analysis)**
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- 1-Jul **2016 West Japan University Championships (Kyoto, JPN)**

- 110mH mF Touchdown_Time (2016.07.02). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 25-Jun **2016 Japanese National Championships (Nagoya, JPN)**
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- 19-Jun **2016 Chinese National Grand Prix Final (Chongqing, CHN)**
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- 19-Jun **2016 Kinki Area High School Championships (Kobe, JPN)**
 100mH wF (tanaka) Touchdown_Time (2016.06.19). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 18-Jun **2016 Hokusei Shinetsu High School Meeting (Okayama, JPN) (0.99m)**
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- 18-Jun **2016 Tokai High School Meeting (Gifu, JPN)**
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- 17-Jun **2016 China Perfecture High School Championships (Okayama, JPN)**
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- 17-Jun **2016 Kanto Area High School Championships (Tokyo, JPN)**
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- 16-Jun **2016 Bauhaus Athletics (Stockholm, SWE)**
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- 11-Jun **2016 Racers Grand Prix (Kingston, JAM) (TV Analysis)**
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- 11-Jun **2016 Japanese National Multi-Event Championships (Nagano, JPN)**
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- 10-Jun **2015 NCAA Championships (Eugene, OR)**
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- 10-Jun **2016 Japanese University Championships (Hiratsuka, JPN)**
 100mH wF (aoki) Touchdown_Time (2016.06.11). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 9-Jun **2016 Bislett Games (Oslo, NOR)**
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 400mH mF Henson, T. (2021) Athlete First: 2016 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 5-Jun **2016 Birmingham Diamond League (Birmingham, GBR)**
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 400mH wF Henson, T. (2020) Athlete First: 2016 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 5-Jun **2016 Sparkassen Gala (Regensburg, GER)**
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- 5-Jun **2016 Fuse Sprint (Tottori, JPN)**
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- 2-Jun **2016 Golden Gala Pietro Mennea (Roma, ITA)**
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- 31-May **2016 Miyazaki Prefecture High School Meeting (Miyazaki, JPN)**
110mH mF (makoto) *Touchdown_Time* (2016.06.01). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 29-May **2016 Hiroshima Prefecture High School Meeting (Hiroshima, JPN)**
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- 29-May **2016 Niigata Prefecture High School Meeting (Niigata, JPN)**
110mH mF *Touchdown_Time* (2016.05.30). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 28-May **2016 Prefontaine Classic (Eugene, OR)**
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400mH mF Henson, T. (2020) *Athlete First: 2016 year end hurdle report*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 28-May **2016 Fukui Prefecture High School Meeting (Fukui, JPN)**
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- 28-May **2016 Kagoshima Prefecture High School Meeting (Kagoshima, JPN)**
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- 22-May **2016 Meeting International Mohammed VI D'Athlétisme (Rabat, MAR) (TV Analysis)**
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400mH wF Henson, T. (2020) *Athlete First: 2016 year end hurdle report*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 22-May **2016 Kansai Corporate Championships (Nagai, JPN)**
110mH mF (omuro) *Touchdown_Time* (2016.05.22). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 21-May **2016 Schweizer Verein Meisterschaften (St. Gallen, SUI)**
100m wF *Swiss Athletics* (2016) *Sprint and hurdle analysis* (in German)
200m wF *Swiss Athletics* (2016) *Sprint and hurdle analysis* (in German)
100mH wF (rard-reuse) *Swiss Athletics* (2016) *Sprint and hurdle analysis* (in German)
- 21-May **2016 East Japan Corporate Championships (Kumagaya, JPN)**
110mH mF (yazawa) *Touchdown_Time* (2016.05.21). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 21-May **2016 Kyoto Prefecture High School Meeting (Kyoto, JPN)**
110mH mF (takata) *Touchdown_Time* (2016.05.30). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 20-May **2016 Kansai Business Championships (Osaka, JPN)**
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- 20-May **2016 Aichi Prefecture High School Meeting (Nagoya, JPN)**
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- 20-May **2016 Kanto Collegiate Championships (Yokohama, JPN)**
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- 14-May **2016 Shanghai Golden Grand Prix (Shanghai, CHN)**
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400mH mF Henson, T. (2020) *Athlete First: 2016 year end hurdle report*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 13-May **2016 Kansai University Meeting (Osaka, JPN)**
110mH mF (kagimoto) *Touchdown_Time* (2016.05.30). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 10-May **2016 Saitama Prefecture High School Meeting (Kumagaya, JPN)**

- 100mH wF (tanaka) Touchdown_Time (2016.05.29). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 8-May **2016 Seiko Golden Grand Prix (Kawasaki, JPN)**
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- 8-May **2016 Kinan Memorial (Osaka, JPN)**
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 400mH mF (tanabe) Touchdown_Time (2016.05.24). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 7-May **2016 Hürden-und Sprintmeeting (Basel, SUI)**
 100m mF, wF Swiss Athletics (2016) Sprint and hurdle analysis (in German)
 200m mF, wF Swiss Athletics (2016) Sprint and hurdle analysis (in German)
 100mH wF (rard-reuse) Swiss Athletics (2016) Sprint and hurdle analysis (in German)
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- 6-May **2016 Doha Diamond League (Doha, QAT) (TV Analysis)**
 110mH mF Henson, T. (2020) Athlete First: 2016 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
 400mH wF Henson, T. (2021) Athlete First: 2016 year end hurdle report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 5-May **2016 Mito Invitational (Mito, JPN)**
 110mH mF Touchdown_Time (2016.05.27). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 3-May **2016 Shizuoka International Athletics Meeting (Fukuroi, JPN)**
 200m mF, wF, wB, wC Takahashi (2016). Performance analysis of the top 200m sprinters in japan & abroad. *Bulletin of Studies in Athletics of JAAF*, 12, p 88. (in Japanese)
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- 30-Apr **2016 Wakayama Grand Prix (Wakayama, JPN)**
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- 29-Apr **2016 Mikio Oda Memorial (Hiroshima, JPN)**
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- 16-Apr **2016 Chinese National Grand Prix (Shaoxing, CHN)**
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- 15-Apr **2016 East Java National Championships (Surabaya, INA)**
 400m wF Saputri, D. (2016). Analisis kecepatan lari 400m putri final kejuaraan nasional atletik jawa timur terbuka. *Jurnal Ilmu Keolahragaan*, p5. (in Indonesian)
- 27-Feb **2016 Swiss National Indoor Championships (St. Gallen, SUI)**
 60m wF, wSF Swiss Athletics (2016) Sprint and hurdle analysis (in German)
- 16-Oct **2015 Japanese National Junior Championships (Nagoya, JPN)**
 400m mF, wF Kohei (2015). 400m race analysis of male & female at major 2015 competitions. *Bulletin of Studies in Athletics of JAAF*, 11, p 129, 132. (in Japanese)
 110mH mF Takashima (2015). Race analysis of 110m & 100m hurdles in Japan- results of main 2015 competitions. *Bulletin of Studies in Athletics of JAAF*, 11, p 109. (in Japanese)
 400mH mF, wF Yasunori (2015). Race pattern analysis of the top 400m hurdlers in Japan. *Bulletin of Studies in Athletics of JAAF*, 11, p 72-73. (in Japanese)
- 16-Oct **2015 Japanese National Youth Championships (Nagoya, JPN)**
 400m mF, wF Kohei (2015). 400m race analysis of male & female at major 2015 competitions. *Bulletin of Studies in Athletics of JAAF*, 11, p 129, 132. (in Japanese)
 400mH wF (murakami) Yasunori (2015). Race pattern analysis of the top 400m hurdlers in Japan. *Bulletin of Studies in Athletics of JAAF*, 11, p 73. (in Japanese)
- 4-Oct **2015 National Sports Festival (Wakayama, JPN)**

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- 24-Sep **2015 Chinese National Championships (Suzhou, CHN)**
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- 27-Aug **2015 IAAF World Championships (Beijing, CHN)**
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200m mF, mSF, mH, wF, wH Takahashi (2015). 200m race analysis of Japanese and the World best of 2015. *Bulletin of Studies in Athletics of JAAF*, 11, p 126-127. (in Japanese)
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400mH mF, wF Henson, T. (2021) Athlete First: Major championships report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 30-Jul **2015 Japanese National High School Championships (Wakayama, JPN)**
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200m mF, wF Enomoto, E. (2015). 68th high school championships: JAF scientific committee - biomechanics data collection. p. 7, 46. (in Japanese)
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110mH mF Enomoto, E. (2015). 68th high school championships: JAF scientific committee - biomechanics data collection. p. 19-20. (in Japanese)
400mH mF, wF Enomoto, E. (2015). 68th high school championships: JAF scientific committee - biomechanics data collection. p. 22, 61. (in Japanese)
- 27-Jul **2015 Résisprint International (La Chaux-de-Fonds, SU1)**
400m mF (van Niekerk) Vazel, P.-J. (2018). Men's 400m: Historical analysis and coaching commentary. In Pollitt, L., Walker, J., Tucker, C., Bissas, A., & Merlino, S. (Eds). *Biomechanical report for the IAAF world championships: London 2017*. Leeds Beckett University, London, GBR. p45.
- 26-Jul **2015 Windsprint (Sundsvall, SWE)**
100m mA, mB, mC, mD, mE, wA, wB, wC Andersson, H.(2015) Windsprint 2015 Splittider. Retrieved from www.windsprint/Splittider/ (in Swedish)
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- 25-Jul **2015 Italian National Championships (Torino, ITA)**
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- 24-Jul **2015 Pan American Games (Toronto, CAN)**
110mH mF (thomas) Touchdown_Time (2016.01.29). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en (in Japanese)
- 5-Jul **2015 Résisprint International (La Chaux-de-Fonds, SU1)**
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- 4-Jul **2015 Areva Diamond League Meeting (Saint-Denis, FRA)**
100m mF Vazel, P.J. (2015) Retrieved from <http://vazel.blog.lemonde.fr/2015/07/06/jim-vicaut-son-record-deurope-du-100m-a-la-loupe/> (in French)
- 4-Jul **2015 Japanese National Multi-Event Championships (Nagano, JPN)**
100m Dec Toshiyuki (2016). 100m race analysis of decathletes - 2009-2016. *Bulletin of Studies in Athletics of JAAF*, 12, p 157, 159. (in Japanese)
- 28-Jun **2015 Japanese National Championships (Niigata, JPN)**
100m mF, mH, wF, wSF, wH Matsuo (2015). 2015 men's & women's 100m race analysis. *Bulletin of Studies in Athletics of JAAF*, 11, p 145-146. (in Japanese)

- 200m mF, wF Takahashi (2015). 200m race analysis of Japanese and the World best of 2015. *Bulletin of Studies in Athletics of JAAF*, 11, p 125. (in Japanese)
- 400m mF, mH, wF Kohei (2015). 400m race analysis of male & female at major 2015 competitions. *Bulletin of Studies in Athletics of JAAF*, 11, p 129, 132. (in Japanese)
- 100mH wF Takashima (2015). Race analysis of 110m & 100m hurdles in Japan- results of main 2015 competitions. *Bulletin of Studies in Athletics of JAAF*, 11, p 112. (in Japanese)
- 110mH mF Takashima (2015). Race analysis of 110m & 100m hurdles in Japan- results of main 2015 competitions. *Bulletin of Studies in Athletics of JAAF*, 11, p 109. (in Japanese)
- 400mH mF, wF Yasunori (2015). Race pattern analysis of the top 400m hurdlers in Japan. *Bulletin of Studies in Athletics of JAAF*, 11, p 71. (in Japanese)
- 13-Jun **2015 NCAA Championships (Eugene, OR)**
- 200m wF USTFCCCA (2017). NCAA Division I outdoor national championship history. p318. Retrieved from: <http://www.usfccc.org/assets/record-book/ncaa-division-i-outdoor-track/NCAA-DI-OTF-Event-YearByYearResults.pdf>
- 400m mF, wF USTFCCCA (2017). NCAA Division I outdoor national championship history. P33, 326. Retrieved from: <http://www.usfccc.org/assets/record-book/ncaa-division-i-outdoor-track/NCAA-DI-OTF-Event-YearByYearResults.pdf>
- 4-Jun **2015 Asian Championships (Wuhan, CHN)**
- 400m wF (yang) Yang H. (2019). China's outstanding women's 400 meters runner Yang Willzhen full running speed characteristics analysis. *Social Sciences II*, p31, 35, 39. (in Chinese)
- 20-May **2015 World Challenge (Beijing, CHN)**
- 100mH wF (wu) Liu W. (2017) A study on the characteristics of speed rhythm of athletes at different levels of women's 100m hurdles. (Dissertation). p. 34. (in Chinese)
- 17-May **2015 Golden Grand Prix (Shanghai, CHN)**
- 110mH mF (xie) Wang S. (2016). Analysis of technical characteristes and performace prediction of rising star Xie Wenjun in 110m Hurdles. *Social Sciences II*, p16. (in Chinese)
- 10-May **2015 Seiko Golden Grand Prix (Kawasaki, JPN)**
- 100m mF, wF Matsuo (2015). 2015 men's & women's 100m race analysis. *Bulletin of Studies in Athletics of JAAF*, 11, p 145-146. (in Japanese)
- 200m mF, wF Takahashi (2015). 200m race analysis of Japanese and the World best of 2015. *Bulletin of Studies in Athletics of JAAF*, 11, p 124. (in Japanese)
- 100mH wF Takashima (2015). Race analysis of 110m & 100m hurdles in Japan- results of main 2015 competitions. *Bulletin of Studies in Athletics of JAAF*, 11, p 112. (in Japanese)
- 400mH mF, wF Yasunori (2015). Race pattern analysis of the top 400m hurdlers in Japan. *Bulletin of Studies in Athletics of JAAF*, 11, p 70. (in Japanese)
- 3-May **2015 Shizuoka International Athletics Meeting (Fukuroi, JPN)**
- 100mH wF Takashima (2015). Race analysis of 110m & 100m hurdles in Japan- results of main 2015 competitions. *Bulletin of Studies in Athletics of JAAF*, 11, p 111. (in Japanese)
- 110mH mF Takashima (2015). Race analysis of 110m & 100m hurdles in Japan- results of main 2015 competitions. *Bulletin of Studies in Athletics of JAAF*, 11, p 109. (in Japanese)
- 400mH mF, mB Yasunori (2015). Race pattern analysis of the top 400m hurdlers in Japan. *Bulletin of Studies in Athletics of JAAF*, 11, p 69. (in Japanese)
- 25-Apr **2015 Wakayama Grand Prix (Wakayama, JPN)**
- 100m Dec Toshiyuki (2016). 100m race analysis of decathletes - 2009-2016. *Bulletin of Studies in Athletics of JAAF*, 12, p 157, 159. (in Japanese)
- 19-Apr **2015 Mikio Oda Memorial (Hiroshima, JPN)**
- 100m mF, mH, wF, wH Matsuo (2015). 2015 men's & women's 100m race analysis. *Bulletin of Studies in Athletics of JAAF*, 11, p 145-146. (in Japanese)
- 200m mF, wF Takahashi (2015). 200m race analysis of Japanese and the World best of 2015. *Bulletin of Studies in Athletics of JAAF*, 11, p 123. (in Japanese)
- 28-Mar **2015 Texas Relays (Austin, TX)**
- 100m mF (kiryu) TFData-Store (2017.03.29) Retrieved from tfdata-store.com/2017/03/29/post-73/
- 14-Feb **2015 Czech Republic National U20 Indoor Championships (Praha, CZE)**
- 60mH mF, wF Feher, J., & Kaplan, A.(2015). Final report from the U18 & U20 Czech Republic indoor national championships, 60m Hurdles. *Katedra atletiky UK FTVS: Praha, CZE.* (in Czech).
- 14-Feb **2015 Czech Republic National U18 Indoor Championships (Praha, CZE)**
- 60mH mF, wF Feher, J., & Kaplan, A.(2015). Final report from the U18 & U20 Czech Republic indoor national championships, 60m Hurdles. *Katedra atletiky UK FTVS: Praha, CZE.* (in Czech).
- 11-Oct **2014 Chinese National Championships (Suzhou, CHN)**
- 100mH wF (deng) Deng R. (2016). China's outstanding women's 100-meter hurdles athlete Deng Ru 2014 winter training arrangement research. *Social Sciences II*, p21. (in Chinese)
- 400mH wF (huang) Huang Y. (2021). Study of the pre-competition training of women's 400m hurdler Huang Yan - An example of preparation for the 2016 Championships. (Dissertation) Soochow University. p. 24-25. (in Chinese)
- 3-Oct **2014 Japanese National Junior Championships (Nagoya, JPN)**
- 110mH mSF (furuya) Kota, T., Kazuhito, K., Watanabe, A., Fukuda, A., Kawabata, R., Kohei, Y., Takashi, W., Katsuhiko, O. & Hinokawa. (2017). 70th high school championships: JAF scientific committee - biomechanics data collection. p. 19-20. (in Japanese)
- 29-Sep **2014 Asian Games (Incheon, KOR)**
- 100m Dec Takeo (2014). Decathletes sprint ability and the relationship of the individual event performance. *Bulletin of Studies in Athletics of JAAF*, 10, p 124. (in Japanese)
- 400m mF Maho (2014). Race analysis of men's 400m run in the 2014 season. *Bulletin of Studies in Athletics of JAAF*, 10, p 76. (in Japanese)

- Dec Takeo (2014). Decathletes sprint ability and the relationship of the individual event performance. *Bulletin of Studies in Athletics of JAAF*, 10, p 127. (in Japanese)
- 110mH mF (xie) Wang L., Yin J., Xu Y., Gong M., & Li R. (2016) Comparative analysis of the grey relational grade of the segment time and final results of the 110m hurdle race of Xie Wenjun and Liu Xiang. *Sport Science Research*, 37 (5), p. 4. (in Chinese)
- Dec Takeo (2014). Decathletes sprint ability and the relationship of the individual event performance. *Bulletin of Studies in Athletics of JAAF*, 10, p 128. (in Japanese)
- 31-Aug **2014 Kanto Championships (Sagamihara, JPN)**
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- 14-Aug **2014 European Championships (Zurich, SUI)**
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110mH mH Incalza, P. (2014) Retrieved from <https://www.youtube.com/watch?v=wFOM-j9iZHE&list=UU7691fXeyNFIMROfkJ-WWUg>
400mH mF Green (2015) - twitter.com/jackpgreen (from Behm?)
wSF (pedroso) Incalza, P. (2014) Retrieved from FIDAL - <https://www.youtube.com/watch?v=EnXI2yLcGsg&list=UU7691fXeyNFIMROfkJ-WWUg>
- 2-Aug **2014 Czech Republic National Championships (Ostrava, CZE)**
100mH wF, wH Feher, J., & Kaplan, A. (2014). Final report from the Czech Republic national championships, 100m & 110m Hurdles. *Katedra atletiky UK FTVS: Praha, CZE.* (in Czech).
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- 31-Jul **2014 Japanese National High School Championships (Kofu, JPN)**
100m mF, wF Yanagiya (2014) - research on athlete performance and technique- 2014 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 99. (in Japanese)
200m mF Yanagiya (2014) - research on athlete performance and technique- 2014 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 100. (in Japanese)
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- 25-Jul **2014 IAAF World Junior Championships (Eugene, OR)**
400m mF, mSF Maho (2014). Race analysis of men's 400m run in the 2014 season. *Bulletin of Studies in Athletics of JAAF*, 10, p 76. (in Japanese)
- 20-Jul **2014 Windsprint (Sundsvall, SWE)**
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- 28-Jun **2014 Czech Republic National U20 Championships (Trinec, CZE)**
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- 28-Jun **2014 Czech Republic National U18 Championships (Trinec, CZE)**
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- 14-Jun **2014 NCAA Championships (Eugene, OR)**
200m wF USTFCCCA (2017). *NCAA Division I outdoor national championship history*. p318. Retrieved from: <http://www.usfccc.org/assets/record-book/ncaa-division-i-outdoor-track/NCAA-DI-OTF-Event-YearByYearResults.pdf>
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- 14-Jun **2014 adidas (New York, NY)**
400m mF (van niekerk) Vazel, P.-J. (2016). How van Niekerk broke the 400m world record. Retrieved from www.track-stats.com

- 8-Jun **2014 Japanese National Championships (Fukushima, JPN)**
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 400m mF Maho (2014). *Race analysis of men's 400m run in the 2014 season. Bulletin of Studies in Athletics of JAAF*, 10, p 76. (in Japanese)
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 mSF (masuno) Touchdown_Time (2017.02.27). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
 400mH mF, wF Yasunori (2014). *Race pattern analysis of Japanese top 400m hurdlers for major domestic competitions. Bulletin of Studies in Athletics of JAAF*, 10, p 98. (in Japanese)
- 7-Jun **2014 Sparkassen Gala (Regensburg, GER)**
 100mH wF, wH Buckwitz, R. (2014) *OSP Berlin / DLV frauen hürden report* (in German)
- 31-May **2014 Japanese National Multi-Event Championships (Nagano, JPN)**
 100m Dec Takeo (2014). *Decathletes sprint ability and the relationship of the individual event performance. Bulletin of Studies in Athletics of JAAF*, 10, p 124. (in Japanese)
 400m Dec Takeo (2014). *Decathletes sprint ability and the relationship of the individual event performance. Bulletin of Studies in Athletics of JAAF*, 10, p 127. (in Japanese)
 110mH Dec Takeo (2014). *Decathletes sprint ability and the relationship of the individual event performance. Bulletin of Studies in Athletics of JAAF*, 10, p 128. (in Japanese)
- 18-May **2014 Golden Grand Prix (Shanghai, CHN)**
 110mH mF (xie) Wang L., Yin J., Xu Y., Gong M., & Li R. (2016) *Comparative analysis of the grey relational grade of the segment time and final results of the 110m hurdle race of Xie Wenjun and Liu Xiang. Sport Science Research*, 37 (5), p. 4. (in Chinese)
- 11-May **2014 Seiko Golden Grand Prix (Tokyo, JPN)**
 100m mF, wF Matsuo (2014) - *research on athlete performance and technique- 2014 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 31, 34. (in Japanese)*
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 400mH mF Yasunori (2014). *Race pattern analysis of Japanese top 400m hurdlers for major domestic competitions. Bulletin of Studies in Athletics of JAAF*, 10, p 97. (in Japanese)
- 3-May **2014 Shizuoka International Athletics Meeting (Fukuroi, JPN)**
 200m mF, mB Koyama (2014) - *research on athlete performance and technique- 2014 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 25. (in Japanese)*
 400m mF Maho (2014). *Race analysis of men's 400m run in the 2014 season. Bulletin of Studies in Athletics of JAAF*, 10, p 76. (in Japanese)
 400mH mF, mB, mC, wF Yasunori (2014). *Race pattern analysis of Japanese top 400m hurdlers for major domestic competitions. Bulletin of Studies in Athletics of JAAF*, 10, p 95-96. (in Japanese)
- 29-Apr **2014 Mikio Oda Memorial (Hiroshima, JPN)**
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- 26-Apr **2014 Nittai University Distance Meeting (Wakayama, JPN)**
 100m Dec (otebe) Matsuo (2014) - *research on athlete performance and technique- 2014 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 13. (in Japanese)*
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- 20-Apr **2014 Chinese National Grand Prix (Zhaoqing, CHN)**
 100mH wF (deng) Deng R. (2016). *China's outstanding women's 100-meter hurdles athlete Deng Ru 2014 winter training arrangement research. Social Sciences II*, p21. (in Chinese)
- 20-Apr **2014 Izumo Athletics Games (Izumo, JPN)**
 100m mA, mB, mC, mH Matsuo (2014) - *research on athlete performance and technique- 2014 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 9. (in Japanese)*
- 22-Feb **2014 Italian National Indoor Championships (Ancona, ITA)**
 60mH mF (dal molin) FIDAL - Centro Studi & Ricerche (2014) Retrieved from www.youtube.com/watch?v=bF4QEg7shU
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- 19-Oct **2013 Japanese Corporate Championships (Hiratsuka, JPN)**
 110mH mF (yazawa) Touchdown_Time (2016.11.18). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 13-Aug **2013 IAAF World Championships (Moscow, RUS)**
 100m

- 200m
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- 100mH wF Henson, T. (2021) *Athlete First: Major championships report*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 110mH mF Henson, T. (2021) *Athlete First: Major championships report*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 400mH mF, wF Henson, T. (2021) *Athlete First: Major championships report*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 31-Jul **2013 Japanese National High School Championships (Oita, JPN)**
100m mF, wF Matsuo, A. (2013). 66th high school championships: JAF scientific committee - biomechanics data collection. p. 3, 5. (in Japanese)
200m mF (kiryu) Yanagiya (2014) - research on athlete performance and technique- 2014 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 100. (in Japanese)
400m mF, wF Matsuo, A. (2013). 66th high school championships: JAF scientific committee - biomechanics data collection. p. 7, 9. (in Japanese)
mF (kato), wF (oki) Yanagiya (2014) - research on athlete performance and technique- 2014 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 104. (in Japanese)
- 28-Jul **2013 Windsprint (Sundsvall, SWE)**
100m mA, mB, mC, mD, mE, mF, mG, mH, mH8, wA, wB, wC, wD Andersson, H.(2013) *Windsprint 2013 Splittider*. Retrieved from www.ssg.se/windsprint/Splittider/ (in Swedish)
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100mH wF Andersson, H.(2013) *Windsprint 2013 Splittider*. Retrieved from www.ssg.se/windsprint/Splittider/ (in Swedish)
110mH mF Andersson, H.(2013) *Windsprint 2013 Splittider*. Retrieved from www.ssg.se/windsprint/Splittider/ (in Swedish)
- 4-Jul **2013 Athletissima Diamond League Meeting (Lausanne, SUI)**
100mH wF (pearson) Vazel (2013) - hurdle observations
- 22-Jun **2013 USATF National Championships (Des Moines, IA)**
100mH wF (rollins) Touchdown_Time (2015.09.20). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en (in Japanese)
- 16-Jun **2013 Chinese National Grand Prix Final (Shenyang, CHN)**
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- 15-Jun **2013 Czech Republic National Championships (Tábor, CZE)**
100m mF, mH, wF, wH Feher, J. (2013). *Final report from the men's & women's Czech Republic national championships - sprints. Katedra atletiky UK FTVS: Praha, CZE. (in Czech).*
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110mH mF, mH Feher, J. (2013). *Final report from the men's & women's Czech Republic national championships - sprints. Katedra atletiky UK FTVS: Praha, CZE. (in Czech).*
- 15-Jun **2013 Italian National Junior Championships (Rieti, ITA) (0.99m)**
110mH mF (perini) FIDAL - Centro Studi & Ricerche (2013) Retrieved from www.youtube.com/watch?v=IGr3fQGxe1c
- 13-Jun **2013 European U23 Championships (Tampere, FIN)**
200m wF (hooper) FIDAL - Centro Studi & Ricerche (2013) Retrieved from www.youtube.com/watch?v=MpQZzdXjX-w
- 7-Jun **2013 Japanese National Championships (Chofu, JPN)**
100m mH (kawatsura), wF (fujimori), wH (kimura) Akirabun (2013). *Speed change and the highest speed section appearance in the 100m race of 2012 and 2013. Bulletin of Studies in Athletics of JAAF, 9, p 51. (in Japanese)*
400m wF (sugiura) Yamamoto (2016). *Race analysis of male & female 400m runners at major competitions in 2016. Bulletin of Studies in Athletics of JAAF, 12, p 100-101. (in Japanese)*
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- 1-Jun **2013 Japanese National Multi-Event Championships (Nagano, JPN)**
100m Dec Takeo (2014). *Decathletes sprint ability and the relationship of the individual event performance. Bulletin of Studies in Athletics of JAAF, 10, p 124. (in Japanese)*
400m Dec Takeo (2014). *Decathletes sprint ability and the relationship of the individual event performance. Bulletin of Studies in Athletics of JAAF, 10, p 127. (in Japanese)*
110mH Dec Takeo (2014). *Decathletes sprint ability and the relationship of the individual event performance. Bulletin of Studies in Athletics of JAAF, 10, p 128. (in Japanese)*
- 30-May **2013 Chinese National Championships (Suzhou, CHN)**
400mH mF (li) Li X. (2014) *Research on training characteristics of Li Zhilong's of Chinese men's 400m hurdles athletes. (Dissertation) Beijing Sport University. p.20. (in Chinese)*
- 25-May **2013 Great CityGames (Manchester, GBR) (150m straightaway)**
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mF, wF Minshull, P. (2013). *World bests for Shakes-Drayton and Felix in Manchester. Retrieved from www.iaaf.org.*
- 18-May **2013 Golden Grand Prix (Shanghai, CHN)**

- 110mH mF (xie) Wang L., Yin J., Xu Y., Gong M., & Li R. (2016) Comparative analysis of the grey relational grade of the segment time and final results of the 110m hurdle race of Xie Wenjun and Liu Xiang. *Sport Science Research*, 37 (5), p. 4. (in Chinese)
- 5-May **2013 Seiko Golden Grand Prix (Tokyo, JPN)**
110mH mF Akirabun (2013). Speed change and the highest speed section appearance in the 100m race of 2012 and 2013. *Bulletin of Studies in Athletics of JAAF*, 9, p 51. (in Japanese)
- 4-May **2013 Mito Invitational Athletics Meeting (Mito, JPN)**
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- 29-Apr **2013 Mikio Oda Memorial (Hiroshima, JPN)**
100m mF, mH3 Akirabun (2013). Speed change and the highest speed section appearance in the 100m race of 2012 and 2013. *Bulletin of Studies in Athletics of JAAF*, 9, p 51. (in Japanese)
110mH mF, mH Kota (2013). Race analysis of leading Japanese men's 110m hurdlers - from 2011-13. *Bulletin of Studies in Athletics of JAAF*, 9, p 77, 79, 81, 83, & 85. (in Japanese)
- 28-Apr **2013 Chinese National Grand Prix (Zhaoqing, CHN)**
110mH mF (xie) Wang L., Yin J., Xu Y., Gong M., & Li R. (2016) Comparative analysis of the grey relational grade of the segment time and final results of the 110m hurdle race of Xie Wenjun and Liu Xiang. *Sport Science Research*, 37 (5), p. 4. (in Chinese)
400mH mF (li) Li X. (2014) Research on training characteristics of Li Zhilong's of Chinese men's 400m hurdles athletes. (Dissertation) Beijing Sport University. p.20. (in Chinese)
wF Deng X. (2015). Training practice research of Deng Xiaoqing, a women's 400-meter hurdler. (Dissertation) Wuhan Polytechnic University. p.20. (in Chinese)
- 26-Apr **2013 Wakayama Athletics Meeting (Wakayama, JPN)**
100m Dec Takeo (2014). Decathletes sprint ability and the relationship of the individual event performance. *Bulletin of Studies in Athletics of JAAF*, 10, p 124. (in Japanese)
400m Dec Takeo (2014). Decathletes sprint ability and the relationship of the individual event performance. *Bulletin of Studies in Athletics of JAAF*, 10, p 127. (in Japanese)
110mH Dec Takeo (2014). Decathletes sprint ability and the relationship of the individual event performance. *Bulletin of Studies in Athletics of JAAF*, 10, p 128. (in Japanese)
- 2-Mar **2013 European Indoor Championships (Göteborg, SWE)**
60m mF, mSF1, wF Blomkvist, B. (2013) Retrieved from www.elitlandslag.se/SprintHäck/KortHäck.aspx (in Swedish)
60mH mHep, mF, mSF, mH, wF wPent Blomkvist, B. (2013) Retrieved from www.elitlandslag.se/SprintHäck/KortHäck.aspx (in Swedish)
- 23-Feb **2013 Italian National Indoor Junior Championships (Ancona, ITA) (0.99m)**
60mH mF (perini) FIDAL - Centro Studi & Ricerche (2013) Retrieved from www.youtube.com/watch?v=Egf_xlSp-DI
- 23-Feb **2013 Italian National Indoor Youth Championships (Ancona, ITA) (0.91m)**
60mH mF FIDAL - Centro Studi & Ricerche (2013) Retrieved from www.youtube.com/watch?v=Egf_xlSp-DI
- 16-Feb **2013 Italian National Indoor Championships (Ancona, ITA)**
60mH wF (borsi) FIDAL - Centro Studi & Ricerche (2013) Retrieved from www.youtube.com/watch?v=V4AEm5H14hl
- 6-Oct **2012 Kokutai National Sport Festival (Gifu, JPN)**
100m mSF2, wSF (shimizu) Akirabun (2013). Speed change and the highest speed section appearance in the 100m race of 2012 and 2013. *Bulletin of Studies in Athletics of JAAF*, 9, p 51. (in Japanese)
400m mF Maho (2013). Race analysis of the men's 400m run in competition. *Bulletin of Studies in Athletics of JAAF*, 9, p 67. (in Japanese)
- 23-Sep **2012 Chinese National Championships (Kunshan, CHN)**
100mH wF (deng) Liu Z. (2013). Study of winter training of chinese hurdler Deng Ru for the 12th national games. (Dissertation) Beijing Sport University. p. 18. (in Chinese)
400mH mF (li) Li X. (2014) Research on training characteristics of Li Zhilong's of Chinese men's 400m hurdles athletes. (Dissertation) Beijing Sport University. p.20. (in Chinese)
- 12-Sep **2012 Great North CityGames (Newcastle, GBR) (150m straightaway)**
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- 7-Sep **2012 Memorial Van Damme (Brussels, BEL)**
110mH mF (merritt) May, J., & Graubner, R. (2012) Retrieved from <http://www.fgs.uni-halle.de> (TV Analysis) (in German)
mF Henson, T. (2020) Athlete First: 2012 Aries Merritt world record season. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 2-Sep **ISTAF (Berlin, GER)**
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- 26-Aug **2012 AVIVA Grand Prix (Birmingham, GBR)**
110mH mF Henson, T. (2020) Athlete First: 2012 Aries Merritt world record season. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 8-Aug **2012 Olympic Games (London, GBR)**
100m Dec (Ushiro) Takeo (2014). Decathletes sprint ability and the relationship of the individual event performance. *Bulletin of Studies in Athletics of JAAF*, 10, p 124. (in Japanese)
mF (Bolt) Mačkala, K. (2013). - a kinematics analysis of three best 100m performances ever
mF (blake, powell) Zhang C., & Liu L. (2016). Analysis of the winning factors in the men's 100-meter running final of the 30th Olympic Games. Hunan Province, General University Teaching Reform Research Project, 118, p66. (in Chinese)
mF (gatlin) Vazel, PJ (2020.08.05) Retrieved from <https://twitter.com/pjvazel/status/1297188878311284745?s=21>
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- 100mH wF Henson, T. (2021) Athlete First: Major championships report. Retrieved from <http://www.athetefirst.org> (TV Analysis)
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Hep (ennis) Hollman, J., Eddie, K., & Curds, M. (2012). UKA 2012 Olympic Games report: Combined events. UK Athletics; London, GBR. p6.
- 110mH Dec (Ushiro) Takeo (2014). Decathletes sprint ability and the relationship of the individual event performance. Bulletin of Studies in Athletics of JAAF, 10, p 128. (in Japanese)
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mH (taylor) Haines, M. (2012) Retrieved from mikehainesperformance.wordpress.com/2012/08/05/broadening-my-horizons-400m-hurdles-analysis
- 30-Jul **2012 Japanese National High School Championships (Niigata, JPN)**
100m mF, wF Yasunori, M. (2012). 65th high school championships: JAF scientific committee - biomechanics data collection. p. 4, 5. (in Japanese)
200m mF, wF Yasunori, M. (2012). 65th high school championships: JAF scientific committee - biomechanics data collection. p. 10, 13. (in Japanese)
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400mH wF (arashima) Yanagiya (2014) - research on athlete performance and technique- 2014 data book. JAAF. Sugita, M., & Miura, K. (Eds.). p. 104. (in Japanese)
- 20-Jul **2012 Herculis Meeting International D'Athlétisme (Monaco, MON)**
110mH mF Henson, T. (2020) Athlete First: 2012 Aries Merritt world record season. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 13-Jul **2012 AVIVA London Grand Prix (London, GBR)**
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mH2 Henson, T. (2021) Athlete First: 2012 Aries Merritt world record season. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 8-Jul **2012 Italian National Championships (Napoli, ITA)**
400mH mF (bencosme) FIDAL - Centro Studi & Ricerche (2012) Retrieved from www.youtube.com/watch?v=Jmz79eerIOs
- 6-Jul **2012 Areva Diamond League Meeting (Saint-Denis, FRA)**
100mH wF (pearson) Vazel (2013) - hurdle observations
- 30-Jun **2012 USA Olympic Trials (Eugene, OR)**
200m mF, wF Hymans, R. (2020). History of the US olympic trials - track and field. Los Altos, CA: Track and Field News. p1-2, 13. Retrieved from: <https://trackandfieldnews.com/wp-content/uploads/2019/10/2012.pdf>
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110mH mF Henson, T. (2020) Athlete First: 2012 Aries Merritt world record season. Retrieved from <http://www.athetefirst.org>
- 24-Jun **2012 Chinese National Grand Prix Final (Fuzhou, CHN)**
100mH wF (deng) Liu Z. (2013). Study of winter training of chinese hurdler Deng Ru for the 12th national games. (Dissertation) Beijing Sport University. p. 16. (in Chinese)
110mH mF (xie) Wang L., Yin J., Xu Y., Gong M., & Li R. (2016) Comparative analysis of the grey relational grade of the segment time and final results of the 110m hurdle race of Xie Wenjun and Liu Xiang. Sport Science Research, 37 (5), p. 4. (in Chinese)
- 23-Jun **2012 British National Championships (Birmingham, GBR)**
100mH wF (ennis) Hollman, J., Eddie, K., & Curds, M. (2012). UKA 2012 Olympic Games report: Combined events. UK Athletics; London, GBR. p6.
- 12-Jun **2012 Windsprint (Sundsvall, SWE)**
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100mH wF Blomkvist, B. (2012) Retrieved from www.sub13.se (in Swedish)
110mH mF, mH Blomkvist, B. (2012) Retrieved from www.sub13.se (in Swedish)
- 8-Jun **2012 Japanese National Championships (Osaka, JPN)**
100m mH (kuki), wH Akirabun (2013). Speed change and the highest speed section appearance in the 100m race of 2012 and 2013. Bulletin of Studies in Athletics of JAAF, 9, p 51. (in Japanese)
400m mF Maho (2013). Race analysis of the men's 400m run in competition. Bulletin of Studies in Athletics of JAAF, 9, p 67. (in Japanese)
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- 400mH mF, wF Yasunori (2013). Race pattern analysis for the top Japanese 400m hurdlers in major domestic competitions. *Bulletin of Studies in Athletics of JAAF*, 9, p 88. (in Japanese)
- 2-Jun **2012 Prefontaine Classic (Eugene, OR)**
110mH mF Henson, T. (2020) *Athlete First: 2012 Aries Merritt world record season*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 2-Jun **2012 Japanese National Multi-Event Championships (Nagano, JPN)**
100m Dec Takeo (2014). Decathletes sprint ability and the relationship of the individual event performance. *Bulletin of Studies in Athletics of JAAF*, 10, p 124. (in Japanese)
400m Dec Takeo (2014). Decathletes sprint ability and the relationship of the individual event performance. *Bulletin of Studies in Athletics of JAAF*, 10, p 127. (in Japanese)
110mH Dec Takeo (2014). Decathletes sprint ability and the relationship of the individual event performance. *Bulletin of Studies in Athletics of JAAF*, 10, p 128. (in Japanese)
- 27-May **2012 Chinese National Grand Prix (Zibo, CHN)**
110mH mF (xie) Wang L., Yin J., Xu Y., Gong M., & Li R. (2016) Comparative analysis of the grey relational grade of the segment time and final results of the 110m hurdle race of Xie Wenjun and Liu Xiang. *Sport Science Research*, 37 (5), p. 4. (in Chinese)
- 20-May **2012 Great CityGames (Manchester, GBR) (200m straightaway)**
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- 19-May **2012 Golden Grand Prix (Shanghai, CHN)**
110mH mF Feng L. & Chen T. (2016) Liu Xiang's seven-step starting: A discussion on the key issues of 110m hurdles technical training. *Journal of Ningbo Institute of Education*, 18 (3). p. 66. (in Chinese)
mF Henson, T. (2020) *Athlete First: 2012 Aries Merritt world record season*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 16-May **2012 Colorful Daegu Meeting (Daegu, KOR)**
110mH mF Henson, T. (2021) *Athlete First: 2012 Aries Merritt world record season*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 13-May **2012 Kanto (Tokyo, JPN)**
110mH mF (omuro) Karube, S. (2013) *The analysis of hurdle clearance and interval sprint in men's 110m sprint hurdle*. Hosei University Sports and Health Studies. p. 21 (in Japanese)
- 6-May **2012 Seiko Golden Grand Prix (Kawasaki, JPN)**
100m wF (felix) Akirabun (2013). Speed change and the highest speed section appearance in the 100m race of 2012 and 2013. *Bulletin of Studies in Athletics of JAAF*, 9, p 51. (in Japanese)
110mH mF Kota (2013). Race analysis of leading Japanese men's 110m hurdlers - from 2011-13. *Bulletin of Studies in Athletics of JAAF*, 9, p 77, 79, 81, 83, & 85. (in Japanese)
mF (liu) Karube, S. (2013) *The analysis of hurdle clearance and interval sprint in men's 110m sprint hurdle*. Hosei University Sports and Health Studies. p. 21 (in Japanese)
- 4-May **2012 Arkansas Twilight (Fayetteville, AR)**
110mH mF, mH (merritt) Henson, T. (2020) *Athlete First: 2012 Aries Merritt world record season*. Retrieved from <http://www.athetefirst.org>
- 4-May **2012 Mito Invitational Athletics Meeting (Mito, JPN)**
110mH mF Kota (2013). Race analysis of leading Japanese men's 110m hurdlers - from 2011-13. *Bulletin of Studies in Athletics of JAAF*, 9, p 77, 79, 81, 83, & 85. (in Japanese)
- 3-May **2012 Shizuoka International Athletics Meeting (Fukuroi, JPN)**
400mH mF, mB, mD, wF Yasunori (2013). Race pattern analysis for the top Japanese 400m hurdlers in major domestic competitions. *Bulletin of Studies in Athletics of JAAF*, 9, p 87. (in Japanese)
- 29-Apr **2012 Mikio Oda Memorial (Hiroshima, JPN)**
100m mH, wF, wH Akirabun (2013). Speed change and the highest speed section appearance in the 100m race of 2012 and 2013. *Bulletin of Studies in Athletics of JAAF*, 9, p 51. (in Japanese)
110mH mF, mB Kota (2013). Race analysis of leading Japanese men's 110m hurdlers - from 2011-13. *Bulletin of Studies in Athletics of JAAF*, 9, p 77, 79, 81, 83, & 85. (in Japanese)
- 29-Apr **2012 Chinese National Grand Prix (Wuhan, CHN)**
110mH mF (xie) Wang L., Yin J., Xu Y., Gong M., & Li R. (2016) Comparative analysis of the grey relational grade of the segment time and final results of the 110m hurdle race of Xie Wenjun and Liu Xiang. *Sport Science Research*, 37 (5), p. 4. (in Chinese)
- 21-Apr **2012 Tokyo Athletics Championships (Chofu, JPN)**
100m Dec Takeo (2014). Decathletes sprint ability and the relationship of the individual event performance. *Bulletin of Studies in Athletics of JAAF*, 10, p 124. (in Japanese)
400m Dec Takeo (2014). Decathletes sprint ability and the relationship of the individual event performance. *Bulletin of Studies in Athletics of JAAF*, 10, p 127. (in Japanese)
110mH Dec Takeo (2014). Decathletes sprint ability and the relationship of the individual event performance. *Bulletin of Studies in Athletics of JAAF*, 10, p 128. (in Japanese)
- 11-Mar **2012 IAAF World Indoor Championships (Istanbul, TUR) (TV Analysis)**
60mH mF Henson, T. (2020) *Athlete First: 2012 Aries Merritt world record season*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 3-Mar **2012 Melbourne Track Classic (Melbourne, AUS)**
100mH wF (pearson) kitkat1 (2012) Retrieved from www.charliefrancis.com/community/showthread.php?22163-Sally-Pearson-s-12-49
- 26-Feb **2012 USATF National Indoor Championships (Albuquerque, NM) (Altitude)**
60mH mF (merritt) Henson, T. (2020) *Athlete First: 2012 Aries Merritt world record season*. Retrieved from <http://www.athetefirst.org> (TV Analysis)
- 25-Feb **2012 Czech Republic National Indoor Championships (Praha, CZE)**

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- wF, wSF, wH *Feher, J. (2012). Czech Republic indoor national championships - women's 60m. Katedra atletiky UK FTVS: Praha, CZE. (in Czech).*
- 60mH wF, wH *Feher, J. (2012). Czech Republic indoor national championships - women's 60m hurdles. Katedra atletiky UK FTVS: Praha, CZE. (in Czech).*
- mF, mH *Feher, J. (2012). Czech Republic indoor national championships - men's 60m hurdles. Katedra atletiky UK FTVS: Praha, CZE. (in Czech).*
- 25-Feb **2012 Italian National Indoor Championships (Ancona, ITA)**
- 60mH mF (dal molin) *FIDAL - Centro Studi & Ricerche (2012) Retrieved from www.youtube.com/watch?v=SIDALf6RdBY*
- wF *FIDAL - Centro Studi & Ricerche (2012) Retrieved from www.youtube.com/watch?v=_GzCpvpvYL8*
- 18-Feb **2012 Italian National Indoor Junior Championships (Ancona, ITA) (0.99m)**
- 60mH mF (perini) *FIDAL - Centro Studi & Ricerche (2012) Retrieved from www.youtube.com/watch?v=SU_c9jUKwsw*
- 18-Feb **2012 Italian National Indoor Youth Championships (Ancona, ITA) (0.91m)**
- 60mH mF (faragona) *FIDAL - Centro Studi & Ricerche (2012) Retrieved from www.youtube.com/watch?v=SIDALf6RdBY*
- 18-Feb **2012 Aviva Grand Prix (Birmingham, GBR)**
- 60mH mF (liu) *Wang Y., & Hu K. (2012). Analysis of the time characteristics of Liu Xiang in his first 110m hurdles competition of 2012. Social Sciences II, p 67. (in Chinese)*
- 13-Jan **2012 Leonard Hilton Memorial Invitational (Houston, TX)**
- 60mH mF (merritt) *Henson, T. (2020) Athlete First: 2012 Aries Merritt world record season. Retrieved from <http://www.athetefirst.org>*
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- 16-Sep **2011 Van Damme Memorial (Bruxelles, BEL)**
- 200m mF (blake) *Lee, J. & Ferrara, A. (2017) Retrieved from peedendurance.com/2017/07/14/200m-splits-from-usa-national-championships/*
- 9-Sep **2011 Chinese National Championships (Hefei, CHN)**
- 400mH mF (li) *Li X. (2014) Research on training characteristics of Li Zhilong's of Chinese men's 400m hurdles athletes. (Dissertation) Beijing Sport University. p.20. (in Chinese)*
- 28-Aug **2011 IAAF World Championships (Daegu, KOR)**
- 100m mF, mH7, mH5, wF *KSSB (2011). Men's & Women's 100m. Biomechanical research project report in the iaaf world championships, Daegu 2011. Korean Society of Sport Biomechanics; Daegu, KOR. P17-18, 27-28.*
- mSF2, mH6 (bolt) *KSSB. (2011). Quick Report - Usain Bolt 100m. Scientific research project biomechanical analysis at the IAAF world Championships Daegu 2011. Korean Society of Sport Biomechanics; Daegu, KOR.*
- wSF (mang), wH (mang) *Marchand, O. (2011). Une étape encourageante vers 2012 pour Véronique Mang, Revue de l'AEFA, (203), P26-27.*
- 200m mF, wF *Butler, M. (2013). IAAF world championships statistics handbook- moscow 2013. Monaco, MON; IAAF. p84, 212.*
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- 400m mF, wF *Butler, M. (2013). IAAF world athletic results 2008-2011: Full results. Monaco, MON; IAAF. p591, 617-618.*
- 100mH wF, wH *KSSB. (2011). 100m Hurdle Women - Final, & Round 1. Scientific research project biomechanical analysis at the IAAF world Championships Daegu 2011. Korean Society of Sport Biomechanics; Daegu, KOR.*
- 110mH mF *Henson, T. (2021) Athlete First: Major championships report. Retrieved from <http://www.athetefirst.org> (TV Analysis)*
- Dec (ushiro) *Hisashi (2012) - performance analysis of Japanese record holder Keisuke Ushiro. Bulletin of Studies in Athletics of JAAF, 8, p 87. (in Japanese)*
- 400mH mF, wF *Behm, J.-J. (2011). Le quatrache: Démus enfin! Revue de l'AEFA, (203), p34, 36. (in French)*
- mH (fleischhauer) *Beck, V. (2011). 400-meter-hürdensprinter im aufschwung. Leichtathletiktraining, 11(9+10), p49. (in German)*
- 4-Aug **2011 Japanese National High School Championships (Kitakami, JPN)**
- 100m mF, wF *Abe, T. (2011). 64th high school championships: JAF scientific committee - biomechanics data collection. p. 3, 36. (in Japanese).*
- 200m mF, wF *Abe, T. (2011). 64th high school championships: JAF scientific committee - biomechanics data collection. p. 7, 40. (in Japanese).*
- 400m mF, wF *Abe, T. (2011). 64th high school championships: JAF scientific committee - biomechanics data collection. p. 10, 43. (in Japanese).*
- 400mH mF, wF *Abe, T. (2011). 64th high school championships: JAF scientific committee - biomechanics data collection. p. 21, 53. (in Japanese).*
- 31-Jul **2011 Windsprint (Sundsvall, SWE)**
- 100m mF, mB, mC, mD, mE, mF, mG, wF, wB, wC *Andersson, H.(2011) Windsprint 2011 Splittider. Retrieved from www.ssg.se/en/Windsprint/Split-times/ (in Swedish)*
- 100mH wF *Blomkvist, B. (2011) Retrieved from www.sub13.se (in Swedish)*
- 110mH mF *Blomkvist, B. (2011) Retrieved from www.sub13.se (in Swedish)*
- 29-Jul **2011 French National Championships (Albi, FRA)**
- 100m mF (lemaitre) *Vazel, P.J. (2015) Retrieved from <http://vazel.blog.lemonde.fr/2015/07/06/jimmy-vicaut-son-record-deurope-du-100-m-a-la-loupe/> (in French)*
- 24-Jul **2011 German National Championship (Kassel, GER)**
- 400mH mF (gollnow) *Beck, V. (2011). 400-meter-hürdensprinter im aufschwung. Leichtathletiktraining, 11(9+10), p49. (in German)*
- 16-Jul **2011 European U23 Championships (Ostrava, CZE)**
- 400mH mF (gollnow) *Beck, V. (2011). 400-meter-hürdensprinter im aufschwung. Leichtathletiktraining, 11(9+10), p49. (in German)*
- 7-Jul **2011 Asian Championships (Kobe, JPN)**

- 100m wH (okabe) *Maho (2012). Sprint speed in 2011 women's 100m race, a change in pitch and stride. Bulletin of Studies in Athletics of JAAF, 6, p 21-22. (in Japanese)*
- 200m mF, mH *Kyohei (2012). The run performance of the 2011 world and japanese top 200m sprinters. Bulletin of Studies in Athletics of JAAF, 6, p 32. (in Japanese)*
- 110mH mF (yazawa) *Hisashi, M., Takeo, M., Matsuda, K., Honda, Y., & Sugita, M. (2012) Performance analysis of Japanese record holder Keisuke Ushiro. Bulletin of Studies in Athletics of JAAF, 8, p 87. (in Japanese)*
- Dec (nakamura) *Takeo (2014). Decathletes sprint ability and the relationship of the individual event performance. Bulletin of Studies in Athletics of JAAF, 10, p 124. (in Japanese)*
- 400mH mF (abe), wF (kobokura) *Yasuhori (2012). Race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11. Bulletin of Studies in Athletics of JAAF, 8, p 42. (in Japanese)*
- 3-Jul **2011 DLV Junioren-Gala (Mannheim, GER)**
400mH mF (konigsmark) *Beck, V. (2011). 400-meter-hürdensprinter im aufschwung. Leichtathletiktraining, 11(9+10), p49. (in German)*
- 28-Jun **2011 Weltklasse in Biberach (Biberach, GER)**
400mH mF (konigsmark) *Beck, V. (2011). 400-meter-hürdensprinter im aufschwung. Leichtathletiktraining, 11(9+10), p49. (in German)*
- 26-Jun **2011 Fuse Sprint (Tottori, JPN)**
100m wR1 & wR2 (fukushima) *Maho (2012). Sprint speed in 2011 women's 100m race, a change in pitch and stride. Bulletin of Studies in Athletics of JAAF, 6, p 21-22. (in Japanese)*
- 26-Jun **2011 Chinese National Grand Prix (Fuzhou, CHN)**
400mH mF (li) *Li X. (2014) Research on training characteristics of Li Zhilong's of Chinese men's 400m hurdles athletes. (Dissertation) Beijing Sport University. p.20. (in Chinese)*
- 26-Jun **2011 German National Junior Championship (Bremen, GER)**
400mH mF (konigsmark) *Beck, V. (2011). 400-meter-hürdensprinter im aufschwung. Leichtathletiktraining, 11(9+10), p49. (in German)*
- 19-Jun **2011 European Team Championships (Stockholm, SWE)**
100mH wF *Blomkvist, B. (2011) Retrieved from www.sub13.se (in Swedish)*
110mH mF *Blomkvist, B. (2011) Retrieved from www.sub13.se (in Swedish)*
- 12-Jun **2011 Peks Memorial (Hässleholm, SWE)**
400mH mF, wF, wB *Blomkvist, B. (2011) Retrieved from www.elitlandslag.se/SprintHäck/LängSprintHäck.aspx (in Swedish)*
- 11-Jun **2011 Folksam GP (Göteborg, SWE)**
110mH mF *Blomkvist, B. (2011) Retrieved from www.sub13.se (in Swedish)*
- 10-Jun **2011 Japanese National Championships (Kumagaya, JPN)**
100m wH *Maho (2012). Sprint speed in 2011 women's 100m race, a change in pitch and stride. Bulletin of Studies in Athletics of JAAF, 6, p 21-22. (in Japanese)*
200m mF, wF *Kyohei (2012). The run performance of the 2011 world and japanese top 200m sprinters. Bulletin of Studies in Athletics of JAAF, 6, p 31-32. (in Japanese)*
400m mF *Maho (2013). Race analysis of the men's 400m run in competition. Bulletin of Studies in Athletics of JAAF, 9, p 67. (in Japanese)*
110mH mF, mSF, mH *Hisashi, M., Takeo, M., Matsuda, K., Honda, Y., & Sugita, M. (2012) Performance analysis of Japanese record holder Keisuke Ushiro. Bulletin of Studies in Athletics of JAAF, 8, p 87. (in Japanese)*
400mH mF, wF *Yasuhori (2012). Race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11. Bulletin of Studies in Athletics of JAAF, 8, p 42. (in Japanese)*
- 7-Jun **2011 Friidrott (Stockholm, SWE)**
400mH mF, wF *Blomkvist, B. (2011) Retrieved from www.elitlandslag.se/SprintHäck/LängSprintHäck.aspx (in Swedish)*
- 4-Jun **2011 Japanese National Multi-Event Championships (Kawasaki, JPN)**
100m Dec (ushiro) *Hisashi (2012) - performance analysis of Japanese record holder Keisuke Ushiro. Bulletin of Studies in Athletics of JAAF, 8, p 82. (in Japanese)*
Dec (nakamura) *Takeo (2014). Decathletes sprint ability and the relationship of the individual event performance. Bulletin of Studies in Athletics of JAAF, 10, p 124. (in Japanese)*
400m Dec *Takeo (2014). Decathletes sprint ability and the relationship of the individual event performance. Bulletin of Studies in Athletics of JAAF, 10, p 127. (in Japanese)*
110mH Dec (Ushiro) *Hisashi (2012) - performance analysis of Japanese record holder Keisuke Ushiro. Bulletin of Studies in Athletics of JAAF, 8, p 87. (in Japanese)*
Dec (nakamura) *Takeo (2014). Decathletes sprint ability and the relationship of the individual event performance. Bulletin of Studies in Athletics of JAAF, 10, p 128. (in Japanese)*
- 3-Jun **2011 Shizuoka International Athletics Meeting (Fukuroi, JPN)**
400mH mF, mB *Yasuhori (2012). Race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11. Bulletin of Studies in Athletics of JAAF, 8, p 42. (in Japanese)*
- 15-May **2011 Great City Games (Manchester, GBR) (straightaway)**
150m mF, wF *Butler, M. (2010). Gay's last 100 in Manchester street 150: 8.66. Track and Field News. (www.trackandfieldnews.com)*
200m mF, wF *Butler, M. (2010). Gay's last 100 in Manchester street 150: 8.66. Track and Field News. (www.trackandfieldnews.com)*
- 8-May **2011 Seiko Super Grand Prix (Kawasaki, JPN)**
100m wF (takahashi) *Maho (2012). Sprint speed in 2011 women's 100m race, a change in pitch and stride. Bulletin of Studies in Athletics of JAAF, 6, p 21-22. (in Japanese)*
- 3-May **2011 Shizuoka International Athletics Meeting (Fukuroi, JPN)**
200m mF *Kyohei (2012). The run performance of the 2011 world and japanese top 200m sprinters. Bulletin of Studies in Athletics of JAAF, 6, p 31. (in Japanese)*
- 29-Apr **2011 Mikio Oda Memorial (Hiroshima, JPN)**
100m wF, wB, wH *Maho (2012). Sprint speed in 2011 women's 100m race, a change in pitch and stride. Bulletin of Studies in Athletics of JAAF, 6, p 21-22. (in Japanese)*
110mH mF, mH *Kota (2013). Race analysis of leading Japanese men's 110m hurdlers - from 2011-13. Bulletin of Studies in Athletics of JAAF, 9, p 77, 79, 81, 83, & 85. (in Japanese)*
- 23-Apr **2011 Wakayama Athletics Meeting (Wakayama, JPN)**

- 100m Dec (ushiro) Hisashi (2012) - performance analysis of Japanese record holder Keisuke Ushiro. *Bulletin of Studies in Athletics of JAAF*, 8, p 82. (in Japanese)
- 400m Dec (ushiro) Hisashi (2012) - performance analysis of Japanese record holder Keisuke Ushiro. *Bulletin of Studies in Athletics of JAAF*, 8, p 85. (in Japanese)
- 110mH Dec (ushiro) Hisashi (2012) - performance analysis of Japanese record holder Keisuke Ushiro. *Bulletin of Studies in Athletics of JAAF*, 8, p 87. (in Japanese)
- 28-Feb **2011 Swedish National Indoor Championships (Sätra, SWE)**
60mH mF (nossmay) Blomkvist, B. (2011) Retrieved from www.sub13.se (in Swedish)
- 19-Feb **2011 German National Indoor Junior Championships (Leverkusen, GER) (0.99m)**
60mH mF May, J., & Hommel, H. (2011). Zwei jugendliche Hürdensprinter im Vergleich. *Leichtathletiktraining*, 11(4), p32. (in German)
- 5-Feb **2011 Landskamp FIN-SWE-NOR (Tampere, FIN)**
60mH mF Blomkvist, B. (2011) Retrieved from www.sub13.se (in Swedish)
wF Blomkvist, B. (2011) Retrieved from www.sub13.se (in Swedish)
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- 24-Nov **2010 Asian Games (Guangzhou, CHN)**
400m Dec (ushiro) Takeo (2014). Decathletes sprint ability and the relationship of the individual event performance. *Bulletin of Studies in Athletics of JAAF*, 10, p 124. (in Japanese)
- 10-Oct **2010 Commonwealth Games (Dehli, IND)**
400mH mF, mH, wF, wH Arnold, M. (2010). 400mH planning and peaking. *European Sprints & Hurdles Conference*; London, UK.
- 4-Oct **2010 National Sports Festival (Chiba, JPN)**
100mH wF (terada) Touchdown_Time (2017.03.26). Retrieved from https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en (in Japanese)
- 26-Sep **2010 Japanese Corporate Championships (Niigata, JPN)**
100m mF, mSF, mH Takikawa, S., Miyashiro, K., Tsuyoshi, A., Shiraki, J., Nihijima, N., & Ogata, M. (2010) - research on the scientific data utilization model and development process of 100m performance. (In Japanese). (In Japanese).
- 19-Sep **2010 Seiko Super Grand Prix (Kawasaki, JPN)**
100m mF (Iemaitre) Akirabun (2011). Speed was seen in every four strides in the 100m, a change in the pitch and stride. *Bulletin of Studies in Athletics of JAAF*, 6, p 23. (in Japanese)
- 22-Aug **2010 Swedish National Championships (Falun, SWE)**
100mH wF Blomkvist, B. (2010) Retrieved from www.sub13.se (in Swedish)
110mH mF Blomkvist, B. (2010) Retrieved from www.sub13.se (in Swedish)
- 8-Aug **2010 Windsprint (Sundsvall, SWE)**
100m mF, mB, mC, mD, mE, wF, wB, wC Andersson, H. (2010) Windsprint 2010 Splittider. Retrieved from www.ssg.se/en/Windsprint/Split-times/ (in Swedish)
100mH wF Blomkvist, B. (2010) Retrieved from www.sub13.se (in Swedish)
110mH mF Blomkvist, B. (2010) Retrieved from www.sub13.se (in Swedish)
- 7-Aug **2010 German National Youth Championships (Ulm, GER)**
100m mF, mSF, wF, wSF Graubner, R., Bosse, T., & Heise, J. (2010) Retrieved from <http://www.fgs.uni-halle.de> (in German)
200m wA, wB Graubner, R., Bosse, T., & Heise, J. (2010) Retrieved from <http://www.fgs.uni-halle.de> (in German)
- 6-Aug **2010 German National Junior Championships (Ulm, GER)**
100m mF, mSF, wF, wSF Graubner, R., Bosse, T., & Heise, J. (2010) Retrieved from <http://www.fgs.uni-halle.de> (in German)
200m wA, wB, wH Graubner, R., Bosse, T., & Heise, J. (2010) Retrieved from <http://www.fgs.uni-halle.de> (in German)
- 1-Aug **2010 Japanese National High School Championships (Okinawa, JPN)**
100m mF, wF Matsuo, A. (2010). 63rd high school championships: JAF scientific committee - biomechanics data collection. p. 3, 34. (in Japanese).
200m mF, wF Matsuo, A. (2010). 63rd high school championships: JAF scientific committee - biomechanics data collection. p. 6, 37. (in Japanese).
400m mF, wF Matsuo, A. (2010). 63rd high school championships: JAF scientific committee - biomechanics data collection. p. 9, 40. (in Japanese).
400mH mF, wF Matsuo, A. (2010). 63rd high school championships: JAF scientific committee - biomechanics data collection. p. 19, 49. (in Japanese).
- 31-Jul **2010 European Championships (Barcelona, ESP)**
400m wH (hurtis) Le Bras, L. (2013). Analyse de la performance et conception de dispositifs d'entraînement. *Revue de l'AEFA*, (210), p 25. (in French)
100mH wF Graubner, R. (2010) Retrieved from <http://www.fgs.uni-halle.de> (in German)
400mH mF, mSF, mH, wF, wSF, wH Arnold, M. (2010). 400mH planning and peaking. *European Sprints & Hurdles Conference*; London, UK.
mF, wF Behm, J.-J. (2010). Les haies basses: Championnat d'Europe 2010. *Revue de l'AEFA*, (199), p45-46. (in French)
(stambolova) Graubner, R. (2010) Retrieved from <http://www.fgs.uni-halle.de> (in German)
wF
- 16-Jul **2010 Areva Meeting (Saint-Denis, FRA)**
110mH mF (oliver) Wang Y. (2013). Research upon time characters of Liu Xiang's 110m hurdles. Referring to famous star Dayron Robles in Cuba and David Oliver in America. *Social Sciences II*, p 21, 23. (in Chinese)
- 1-Jul **2010 Folksam GP (Sollentuna, SWE)**
110mH mA, mB Blomkvist, B. (2010) Retrieved from www.sub13.se (in Swedish)
- 20-Jun **2010 European Team Championships, 1st League (Budapest, HUN)**
110mH mF Blomkvist, B. (2010) Retrieved from www.sub13.se (in Swedish)
- 2010 USATF National Championship (Des Moines, IA)**
100m
200m
400m
100mH
110mH

- 400mH
- 12-Jun **2010 Japanese National Multi-Event Championships (Kawasaki, JPN)**
 100m Dec (ushiro) *Hisashi (2012) - performance analysis of Japanese record holder Keisuke Ushiro. Bulletin of Studies in Athletics of JAAF, 8, p 82. (in Japanese)*
 Dec (nakamura) *Takeo (2014). Decathletes sprint ability and the relationship of the individual event performance. Bulletin of Studies in Athletics of JAAF, 10, p 124. (in Japanese)*
 400m Dec *Hisashi (2012) - performance analysis of Japanese record holder Keisuke Ushiro. Bulletin of Studies in Athletics of JAAF, 8, p 85. (in Japanese)*
- 6-Jun **2010 Japanese National Championships (Marugame, JPN)**
 100m mF, mSF, mH *Takikawa, S., Miyashiro, K., Tsuyoshi, A., Shiraki, J., Nihijima, N., & Ogata, M. (2010) - research on the scientific data utilization model and development process of 100m performance. (In Japanese).*
 mSF1 (miyazaki), mH4 (eriguchi), wF (watanabe) *Akirabun (2011). Speed was seen in every four strides in the 100m, a change in the pitch and stride. Bulletin of Studies in Athletics of JAAF, 6, p 23. (in Japanese)*
 400mH mF, wF *Yasuho (2012). Race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11. Bulletin of Studies in Athletics of JAAF, 8, p 41. (in Japanese)*
- 5-Jun **2010 Sparkassen-Gala (Regensburg, GER)**
 100m wA, wB, wH *Graubner, R., Bosse, T., Buckwitz, R., & Starke, A. (2010) Retrieved from <http://www.fgs.uni-halle.de> (in German)*
- 4-Jun **2010 ExxonMobil Bislett Games (Oslo, NOR)**
 110mH mjrF *Blomkvist, B. (2010) Retrieved from www.sub13.se (in Swedish)*
- 1-Jun **2010 NCAA National Championships (Eugene, OR)**
 110mH Dec (eaton) *Deca Newsletter (2010). Eaton in ncaa three-peat. DECA Newsletter, 35(34) (in French)*
- 23-May **2010 Shanghai Diamond League (Shanghai, CHN)**
 110mH mF (xie) *He B., & Guo X. (2014). Kinematic analysis of Xie Wenjun's hurdle technique. Social Sciences II, p122. (in Chinese)*
- 19-May **2010 Colorful Daegu Meeting (Daegu, KOR)**
 110mH mF *Hong, S.H. & Ryu, J.K. (2018) - performance of men's 110m hurdles using rhythmic units. Korean Journal of Sport Biomechanics, 28(2), p. 81.*
- 16-May **2010 Great City Games (Manchester, GBR) (straightaway)**
 150m mF, wF *Jalava, M. (2010) Retrieved from www.tilastopaja.org*
 200m mF, wF *Jalava, M. (2010) Retrieved from www.tilastopaja.org*
- 15-May **2010 East Japan Corporate Championships (Kumagaya, JPN)**
 100m mF *Takikawa, S., Miyashiro, K., Tsuyoshi, A., Shiraki, J., Nihijima, N., & Ogata, M. (2010) - research on the scientific data utilization model and development process of 100m performance. (In Japanese).*
- 8-May **2010 Osaka Grand Prix (Osaka, JPN)**
 100m mF, wF (vcb) *Akirabun (2011). Speed was seen in every four strides in the 100m, a change in the pitch and stride. Bulletin of Studies in Athletics of JAAF, 6, p 23. (in Japanese)*
 400mH mF, wF *Yasuho (2012). Race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11. Bulletin of Studies in Athletics of JAAF, 8, p 41. (in Japanese)*
- 3-May **2010 Shizuoka International Athletics Meeting (Fukuroi, JPN)**
 400mH mF, wF *Yasuho (2012). Race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11. Bulletin of Studies in Athletics of JAAF, 8, p 40. (in Japanese)*
- 1-May **2010 Jamaica Invitational (Kingston, JAM)**
 400m mF (gay) *Vazel, P.-J. (2015). Van Niekerk and Merritt were on for the record at 300m. Retrieved from www.track-stats.com*
- 29-Apr **2010 Mikio Oda Memorial (Hiroshima, JPN)**
 100m mF, mB, mH *Takikawa, S., Miyashiro, K., Tsuyoshi, A., Shiraki, J., Nihijima, N., & Ogata, M. (2010) - research on the scientific data utilization model and development process of 100m performance. (In Japanese).*
 100m wF *Akirabun (2011). Speed was seen in every four strides in the 100m, a change in the pitch and stride. Bulletin of Studies in Athletics of JAAF, 6, p 23. (in Japanese)*
- 29-Apr **???**
 100m m (saito) *Takikawa, S., Miyashiro, K., Tsuyoshi, A., Shiraki, J., Nihijima, N., & Ogata, M. (2010) - research on the scientific data utilization model and development process of 100m performance. (In Japanese).*
- 24-Apr **2010 Wakayama Athletics Meeting (Wakayama, JPN)**
 100m Dec *Hisashi (2012) - performance analysis of Japanese record holder Keisuke Ushiro. Bulletin of Studies in Athletics of JAAF, 8, p 82. (in Japanese)*
 400m Dec *Hisashi (2012) - performance analysis of Japanese record holder Keisuke Ushiro. Bulletin of Studies in Athletics of JAAF, 8, p 85. (in Japanese)*
- 13-Mar **2010 IAAF World Indoor Championships (Doha, QAT)**
 60mH mF, wF *Kuitunen, S. (2010). Biomechanical analysis of the 14th IAAF world indoor championships*
 mSF (nossmy) *Blomkvist, B. (2010) Retrieved from www.sub13.se (in Swedish)*
- 28-Feb **2010 Swedish National Indoor Championships (Sätra, SWE)**
 60mH mF (nossmy) *Blomkvist, B. (2010) Retrieved from www.sub13.se (in Swedish)*
- 10-Feb **2010 GE Galan (Stockholm, SWE)**
 60mH mF *Blomkvist, B. (2010) Retrieved from www.sub13.se (in Swedish)*
- 2-Feb **2010 Samsung Galan (Göteborg, SWE)**
 60mH mH *Blomkvist, B. (2010) Retrieved from www.sub13.se (in Swedish)*
- 30-Jan **2010 Five Nations (Glasgow, GBR)**
 60mH mF, wF *Blomkvist, B. (2010) Retrieved from www.sub13.se (in Swedish)*
- 16-Jan **2010 Scandic Indoor Games (Huddinge, SWE)**
 60mH wF (sääw) *Blomkvist, B. (2010) Retrieved from www.sub13.se (in Swedish)*
- 22-Oct **2009 Chinese National Games (Jinan, CHN)**

- 400m wF (huang) Wang H. (2012). Research on the analysis of the speed distribution of China's outstanding female 400-meter runners. *JOURNAL NAME ???*, 38. p. 24. (in Chinese)
- 10-Oct **2009 Gunma Relays (Maebashi, JPN)**
 100m Dec (nakamura) Takeo (2014). Decathletes sprint ability and the relationship of the individual event performance. *Bulletin of Studies in Athletics of JAAF*, 10, p 124. (in Japanese)
 400m Dec Hisashi (2010). The run performance analysis in the decathlon sprint events. *Bulletin of Studies in Athletics of JAAF*, 6, p 130. (in Japanese)
- 23-Sep **2009 Seiko Super Grand Prix (Kawasaki, JPN)**
 100m mF (gay), wF (felix) Akirabun (2010). Analysis of speed and stride on straight track events in the 2009 season. *Bulletin of Studies in Athletics of JAAF*, 6, p 64. (in Japanese)
 100mH wF Akirabun (2010). Analysis of speed and stride on straight track events in the 2009 season. *Bulletin of Studies in Athletics of JAAF*, 6, p 70. (in Japanese)
 110mH mF Ryutaro (2010). An attempt or a creation of a race pattern stadard model for the 110m hurdles. *Bulletin of Studies in Athletics of JAAF*, 6, p 86. (in Japanese)
- 12-Sep **2009 IAAF World Athletic Final (Thessaloniki, GRE)**
 100mH wF (felicien) Winckler, G. (2009) *Sprint hurdles: Physical preparation. UK Athletics National Coaching Conference: Physical Preparation, Birmingham, UK*
- 4-Sep **2009 Japanese National University Championships (Tokyo, JPN)**
 100m mF (eriguchi), mSF (saito) Takikawa, S., Miyashiro, K., Tsuyoshi, A., Shiraki, J., Nihijima, N., & Ogata, M. (2010) - research on the scientific data utilization model and development process of 100m performance. (In Japanese).
- 4-Sep **2009 Memorial Van Damme (Brussels, BEL)**
 400m wF (richards) Vazel, P.-J. (2011). Speed reserve in the 400m. www.uka.org.uk/coaching.
- 28-Aug **2009 Weltklasse (Zurich, SUI)**
 400m wF (richards) Vazel, P.-J. (2011). Speed reserve in the 400m. www.uka.org.uk/coaching.
 100mH wF (felicien) Winckler, G. (2009) *Sprint hurdles: Physical preparation. UK Athletics National Coaching Conference: Physical Preparation, Birmingham, UK*
- 19-Aug **2009 IAAF World Championships (Berlin, GER)**
 100m Dec, mF, mSF, mQF, mH, wF, wSF, wQF, wH Graubner, R., Buckwitz, R., Landmann, M., & Starke, A. (2009). Sprints, Hurdles and Combined Events - Men & Women. In Hommel, H. (Ed.) *Biomechanical analyses at the 12th IAAF world championships in athletics, Berlin - Final Report*.
 mF (bolt, gay, powell) Graubner, R., & Nixdorf, E. (2011). Biomechanical analysis of the sprint and hurdles events at the 2009 IAAF world championships in athletics. *New Studies in Athletics*, 26(1/2), p24.
 mQF (tsukahara), mH (eriguchi & kimura) Akirabun (2010). Changes in stride frequency and stride length of the world's top sprinter. *Bulletin of Studies in Athletics of JAAF*, 6, p 58. (in Japanese)
- 200m mF, mSF, mQF, mH, wF, wSF, wH, Hept Graubner, R., Buckwitz, R., Landmann, M., & Starke, A. (2009). Sprints, Hurdles and Combined Events - Men & Women. In Hommel, H. (Ed.) *Biomechanical analyses at the 12th IAAF world championships in athletics, Berlin - Final Report*.
- 400m mF, Dec, mSF, mH, wF, wSF, wH Graubner, R., Buckwitz, R., Landmann, M., & Starke, A. (2009). Sprints, Hurdles and Combined Events - Men & Women. In Hommel, H. (Ed.) *Biomechanical analyses at the 12th IAAF world championships in athletics, Berlin - Final Report*.
 mF (quow) Maho (2013). Race analysis of the men's 400m run in competition. *Bulletin of Studies in Athletics of JAAF*, 9, p 67. (in Japanese)
 mF, mSF (quow), wF, wSF (krivoshapka) Graubner, R., & Nixdorf, E. (2011). Biomechanical analysis of the sprint and hurdles events at the 2009 IAAF world championships in athletics. *New Studies in Athletics*, 26(1/2), p37, 41.
- 100mH wF, wSF, wH, Hept Graubner, R., Buckwitz, R., Landmann, M., & Starke, A. (2009). Sprints, Hurdles and Combined Events - Men & Women. In Hommel, H. (Ed.) *Biomechanical analyses at the 12th IAAF world championships in athletics, Berlin - Final Report*.
- 110mH mF, mSF, Dec, mH Graubner, R., Buckwitz, R., Landmann, M., & Starke, A. (2009). Sprints, Hurdles and Combined Events - Men & Women. In Hommel, H. (Ed.) *Biomechanical analyses at the 12th IAAF world championships in athletics, Berlin - Final Report*.
- 400mH mF, mSF, mH, wF, wSF, wH Graubner, R., Buckwitz, R., Landmann, M., & Starke, A. (2009). Sprints and Hurdles - Men & Women. In Hommel, H. (Ed.) *Biomechanical analyses at the 12th IAAF world championships in athletics, Berlin - Final Report*.
- 31-Jul **2009 DN Gala (Stockholm, SWE)**
 100mH wF, wH (felicien) Winckler, G. (2009) *Sprint hurdles: Physical preparation. UK Athletics National Coaching Conference: Physical Preparation, Birmingham, UK*
- 30-Jul **2009 Japanese National High School Championships (Nara, JPN)**
 100m mF, mSF, mH, wF Matsuo, A. (2009). 62nd high school championships: JAF scientific committee - biomechanics data collection. p. 3-4, 34. (in Japanese).
 200m mF, wF Matsuo, A. (2009). 62nd high school championships: JAF scientific committee - biomechanics data collection. p. 7, 38. (in Japanese).
 400m mF, wF Matsuo, A. (2009). 62nd high school championships: JAF scientific committee - biomechanics data collection. p. 10, 41. (in Japanese).
 400mH mF, wF Matsuo, A. (2009). 62nd high school championships: JAF scientific committee - biomechanics data collection. p. 20, 50. (in Japanese).
- 25-Jul **2009 Windsprint (Sundsvall, SWE)**
 100m mF, mB, mC, mD, wF, wB, wC, wD Andersson, H.(2009) *Windsprint 2009 Splittider*. Retrieved from www.ssg.se/en/Windsprint/Split-times/ (in Swedish)
 110mH mF (townsend) Andersson, H.(2009) *Windsprint 2009 Splittider*. Retrieved from www.ssg.se/en/Windsprint/Split-times/ (in Swedish)

- 25-Jul **2009 Aviva (London, GBR)**
100mH wF (felicien) Winckler, G. (2009) *Sprint hurdles: Physical preparation. UK Athletics National Coaching Conference: Physical Preparation, Birmingham, UK*
- 24-Jul **2009 French National Championships (Angers, FRA)**
400m wF (désert) Le Bras, L. (2013). *Analyse de la performance et conception de dispositifs d'entraînement. Revue de l'AEFA, (210), p 25. (in French)*
- 10-Jul **2009 Golden Gala (Rome, ITA)**
100mH wF (felicien) Winckler, G. (2009) *Sprint hurdles: Physical preparation. UK Athletics National Coaching Conference: Physical Preparation, Birmingham, UK*
- 9-Jul **2009 Nambu Chuhei Memorial (Sapporo, JPN)**
110mH mF Ryutaro (2010). *An attempt or a creation of a race pattern stadard model for the 110m hurdles. Bulletin of Studies in Athletics of JAAF, 6, p 86. (in Japanese)*
- 7-Jul **2009 Athletissima (Lausanne, SUI)**
100mH wF (felicien) Winckler, G. (2009) *Sprint hurdles: Physical preparation. UK Athletics National Coaching Conference: Physical Preparation, Birmingham, UK*
- 4-Jul **2009 German National Championships (Ulm, GER)**
400mH wH Killing, W. (2009) *Der rhythmus is entscheidend (in German)*
- 3-Jul **2009 Bislett Games (Oslo, NOR)**
100mH wF (felicien) Winckler, G. (2009) *Sprint hurdles: Physical preparation. UK Athletics National Coaching Conference: Physical Preparation, Birmingham, UK*
- 28-Jun **2009 Japanese National Championships (Hiroshima, JPN)**
100m mSF, mH, wSF, wH Akirabun (2010). *Analysis of speed and stride on straight track events in the 2009 season. Bulletin of Studies in Athletics of JAAF, 6, p 64. (in Japanese)*
mF, mSF, mH Takikawa, S., Miyashiro, K., Tsuyoshi, A., Shiraki, J., Nihijima, N., & Ogata, M. (2010) - *research on the scientific data utilization model and development process of 100m performance. (In Japanese).*
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400m Dec Hisashi (2010). *The run performance analysis in the decathlon sprint events. Bulletin of Studies in Athletics of JAAF, 6, p 130. (in Japanese)*
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110mH mF Ryutaro (2010). *An attempt or a creation of a race pattern stadard model for the 110m hurdles. Bulletin of Studies in Athletics of JAAF, 6, p 86. (in Japanese)*
mSF, mH Akirabun (2010). *Analysis of speed and stride on straight track events in the 2009 season. Bulletin of Studies in Athletics of JAAF, 6, p 70. (in Japanese)*
Dec Hisashi (2010). *The run performance analysis in the decathlon sprint events. Bulletin of Studies in Athletics of JAAF, 6, p 128. (in Japanese)*
400mH mF, wF Yasuho (2012). *Race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11. Bulletin of Studies in Athletics of JAAF, 8, p 40. (in Japanese)*
- 27-Jun **2009 Canadian National Championships (Toronto, CAN)**
100mH wF, wH (felicien) Winckler, G. (2009) *Sprint hurdles: Physical preparation. UK Athletics National Coaching Conference: Physical Preparation, Birmingham, UK*
- 14-Jun **2009 ISTAF (Berlin, GER)**
100m mF, mB, mC, wF, wB, wC Graubner, R., Bosse, T., Buckwitz, R., & Starke, A. (2009) Retrieved from <http://www.fgs.uni-halle.de> (in German)
400m mF, mB, wF Graubner, R., Bosse, T., Buckwitz, R., & Starke, A. (2009) Retrieved from <http://www.fgs.uni-halle.de> (in German)
100mH wF Graubner, R., Bosse, T., Buckwitz, R., & Starke, A. (2009) Retrieved from <http://www.fgs.uni-halle.de> (in German)
110mH mF Graubner, R., Bosse, T., Buckwitz, R., & Starke, A. (2009) Retrieved from <http://www.fgs.uni-halle.de> (in German)
- 11-Jun **2009 Festival of Excellence (Toronto, CAN)**
100mH wF (felicien) Winckler, G. (2009) *Sprint hurdles: Physical preparation. UK Athletics National Coaching Conference: Physical Preparation, Birmingham, UK*
- 7-Jun **2009 Prefontaine Classic (Eugene, OR)**
100mH wF (felicien) Winckler, G. (2009) *Sprint hurdles: Physical preparation. UK Athletics National Coaching Conference: Physical Preparation, Birmingham, UK*
- Jun **2009 University of Barcelona Hurdle Analysis (Barcelona, ESP)**
110mH (robles, quinonez) Padulles, J.M., Lopez, J.L., & Olsson, H.J. (2010). *Valoracio fucional I analisi tecnica biomecanica den Dayron Robles. World congress on science in athletics: Barcelona, ESP.*
- 29-May **2009 Osaka Grand Prix (Osaka, JPN)**
100m mF (tsukahara) Takikawa, S., Miyashiro, K., Tsuyoshi, A., Shiraki, J., Nihijima, N., & Ogata, M. (2010) - *research on the scientific data utilization model and development process of 100m performance. (In Japanese).*
- 22-May **2009 Chinese National Championships (Suzhou, CHN)**
400m wF (tang) Wang H. (2012). *Research on the analysis of the speed distribution of China's outstanding female 400-meter runners. JOURNAL NAME ???, 38. p. 24. (in Chinese)*
- 17-May **2009 Great CityGames (Manchester, GBR) (150m straightaway)**
150m mF, wF (2009) Retrieved from www.greatcitygames.org/Results/2009_gcgm.aspx
mB, mH, wB, wH Jalava, M. (2009) Retrieved from www.tilastopaja.org
- 16-May **2009 adidas Track Classic (Carson, CA)**
100mH wF (felicien) Winckler, G. (2009) *Sprint hurdles: Physical preparation. UK Athletics National Coaching Conference: Physical Preparation, Birmingham, UK*
- 9-May **2009 Osaka Grand Prix (Osaka, JPN)**

- 110mH mF Ryutaro (2010). *An attempt or a creation of a race pattern standard model for the 110m hurdles*. *Bulletin of Studies in Athletics of JAAF*, 6, p 86. (in Japanese)
- 400mH mF, wF Yasuhori (2012). *Race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11*. *Bulletin of Studies in Athletics of JAAF*, 8, p 39. (in Japanese)
- 3-May **2009 Shizuoka International Athletics Meeting (Fukuroi, JPN)**
400m mF, mSF Matsuo, A. (2010). *63rd high school championships: JAF scientific committee - biomechanics data collection*. p. 9, 40. (in Japanese)
- 400mH mF, mC Yasuhori (2012). *Race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11*. *Bulletin of Studies in Athletics of JAAF*, 8, p 39. (in Japanese)
- 2-May **2009 University of Illinois Invitational (Champaign, IL)**
100mH wF (felicien) Winckler, G. (2009) *Sprint hurdles: Physical preparation*. UK Athletics National Coaching Conference: Physical Preparation, Birmingham, UK
- 29-Apr **2009 Mikio Oda Memorial (Hiroshima, JPN)**
100m mH, wF, wH Akirabun (2010). *Analysis of speed and stride on straight track events in the 2009 season*. *Bulletin of Studies in Athletics of JAAF*, 6, p 64. (in Japanese)
- 100mH wF (akai) Akirabun (2010). *Analysis of speed and stride on straight track events in the 2009 season*. *Bulletin of Studies in Athletics of JAAF*, 6, p 70. (in Japanese)
- 110mH mF Ryutaro (2010). *An attempt or a creation of a race pattern standard model for the 110m hurdles*. *Bulletin of Studies in Athletics of JAAF*, 6, p 86. (in Japanese)
- mH Akirabun (2010). *Analysis of speed and stride on straight track events in the 2009 season*. *Bulletin of Studies in Athletics of JAAF*, 6, p 70. (in Japanese)
- 25-Apr **2009 Drake Relays (Des Moines, IA)**
100mH wF (felicien) Winckler, G. (2009) *Sprint hurdles: Physical preparation*. UK Athletics National Coaching Conference: Physical Preparation, Birmingham, UK
- 18-Apr **2009 Wakayama Athletics Meeting (Wakayama, JPN)**
400m Dec Hisashi (2010). *The run performance analysis in the decathlon sprint events*. *Bulletin of Studies in Athletics of JAAF*, 6, p 130. (in Japanese)
- 18-Apr **2009 Kansas Relays (Lawrence, KS)**
100mH wF (felicien) Winckler, G. (2009) *Sprint hurdles: Physical preparation*. UK Athletics National Coaching Conference: Physical Preparation, Birmingham, UK
- 2009 USATF National Championship (Eugene, OR)**
100m
200m
400m
100mH
110mH
400mH
- 21-Feb **2009 University of West Indies Invitational (Kingston, JAM)**
400m mH (bolt) Vazel, P.-J. (2009) Retrieved from <http://futuranterieur.files.wordpress.com>
- 10-Feb **2009 Meeting Pas de Calais (Lievin, FRA)**
60m mF, mH Vazel, P.-J. (2009) Retrieved from <http://futuranterieur.files.wordpress.com/2009/02/09-lievin-m605.pdf>
- 23-Sep **2008 Seiko Super Grand Prix (Kawasaki, JPN)**
100m mF, wF Akirabun (2009). *Race analysis of 2008 men's and women's 100m and 110m & 100m hurdles*. *Bulletin of Studies in Athletics of JAAF*, 5, p 54. (in Japanese)
- 100mH wF Akirabun (2009). *Race analysis of 2008 men's and women's 100m and 110m & 100m hurdles*. *Bulletin of Studies in Athletics of JAAF*, 5, p 56. (in Japanese)
- 110mH mF Akirabun (2009). *Race analysis of 2008 men's and women's 100m and 110m & 100m hurdles*. *Bulletin of Studies in Athletics of JAAF*, 5, p 56. (in Japanese)
- 20-Sep **2008 Golden Grand Prix (Shanghai, CHN)**
110mH mF (xie) Wang L., Yin J., Xu Y., Gong M., & Li R. (2016) *Comparative analysis of the grey relational grade of the segment time and final results of the 110m hurdle race of Xie Wenjun and Liu Xiang*. *Sport Science Research*, 37 (5), p. 4. (in Chinese)
- 13-Sep **2008 Japanese National University Championships (Tokyo, JPN)**
100m mSF (saito) Takikawa, S., Miyashiro, K., Tsuyoshi, A., Shiraki, J., Nihijima, N., & Ogata, M. (2010) - *research on the scientific data utilization model and development process of 100m performance*. (In Japanese).
- 13-Sep **2008 IAAF World Athletic Final (Stuttgart, GER)**
100m mF, wF Graubner, R., & Starke, A. (2009) Retrieved from <http://www.fgs.uni-halle.de> (in German)
- 200m mF, wF Graubner, R., & Starke, A. (2009) Retrieved from <http://www.fgs.uni-halle.de> (in German)
- 400m mF, wF Graubner, R., & Starke, A. (2009) Retrieved from <http://www.fgs.uni-halle.de> (in German)
- 100mH wF Graubner, R., & Starke, A. (2009) Retrieved from <http://www.fgs.uni-halle.de> (in German)
- 110mH mF Graubner, R., & Starke, A. (2009) Retrieved from <http://www.fgs.uni-halle.de> (in German)
- 400mH mF, wF Graubner, R., & Starke, A. (2009) Retrieved from <http://www.fgs.uni-halle.de> (in German)
- 16-Aug **2008 Olympic Games (Beijing, CHN)**
100m mF (bolt) Locatelli, E. (2009). *A closer look at 9.69*. *New Studies in Athletics*, 24(1), p
- mF Vazel, PJ (2020.08.17) Retrieved from <https://twitter.com/pjvazel/status/1295071299350470663?s=21>
- 200m mF, wF Butler, M. (2016). *IAAF statistics handbook- Special edition: Games of the XXXI Olympiad- Rio 2016*. IAAF Communications Department, p80, 231.
- 400m wF Graubner, R., (2008) Retrieved from <http://www.fgs.uni-halle.de> (TV Analysis) (in German)
- mF, wF, wSF Butler, M. (2016). *IAAF statistics handbook- Special edition: Games of the XXXI Olympiad- Rio 2016*. IAAF Communications Department, p86, 235.
- mF, wF (richards) Vazel, P.-J. (2011). *Speed reserve in the 400m*. www.uka.org.uk/coaching.

- 100mH wF, wSF Tsiokanos, A., Tsaopoulos, D., Giavroglou, A., & Tsarouchas, E. (2017). Race pattern of women's 100m hurdles: Time analysis of olympic hurdle performance. *International Journal of Kinesiology & Sport Science*, 5(3). p59.
- 110mH mF Tsiokanos, A., Tsaopoulos, D., Giavroglou, A., & Tsarouchas, E. (2018) - Race pattern of men's 110m hurdles: Time analysis of olympic hurdle performance. *Biology of Exercise* 14(2). P21.
- 3-Aug 400mH mF, wF Behm, J.-J. (2008). *Pekin 2008: Le quatrache masculin - féminin. Revue de l'AEFA*, (191), p22. (in French)
- 3-Aug **2008 Swiss National Championships (Fribourg, SUI)**
- 110mH mH (kundert) Weber, R. (2008) *Wettkampfauswertung 110m hürden (in German)*
- 30-Jul **2008 Japanese National High School Championships (Kumagaya, JPN)**
- 100m mF, wF Abe. (2008). *61st high school championships: JAF scientific committee - biomechanics data collection. p. 4, 7. (in Japanese).*
- 200m mF, wF Abe. (2008). *61st high school championships: JAF scientific committee - biomechanics data collection. p. 9, 11. (in Japanese).*
- 400m mF, wF Abe. (2008). *61st high school championships: JAF scientific committee - biomechanics data collection. p. 13-14. (in Japanese).*
- 400mH mF, wF Abe. (2008). *61st high school championships: JAF scientific committee - biomechanics data collection. p. 16-17. (in Japanese).*
- 6-Jul **2008 USA Olympic Trials (Eugene, OR)**
- 100m mF, mSF, mQF, mH, wF, wSF, wQF, wH USATF Women's Sprint Development with HPC (2008). *Report from 2008 USA Olympic Trials*
- 200m mF, mSF, mQF, mH, wF, wSF, wQF, wH USATF Women's Sprint Development with HPC (2008). *Report from 2008 USA Olympic Trials*
- 400m mF, mSF, wF, wQF USATF Women's Sprint Development with HPC (2008). *Report from 2008 USA Olympic Trials*
- 100mH wF USATF Men's Hurdle Development (2008). *Report from 2008 USA Olympic Trials*
- 110mH mF USATF Men's Hurdle Development (2008). *Report from 2008 USA Olympic Trials*
- 400mH mF, wF USATF Men's Hurdle Development (2008). *Report from 2008 USA Olympic Trials*
- 6-Jul **2008 Windsprint (Sundsvall, SWE)**
- 100m mF, wF Andersson, H.(2008) *Windsprint 2008 Splittider. Retrieved from www.ssg.se/en/Windsprint/Split-times/ (in Swedish)*
- 200m mF, mB, mC, wF, wB Andersson, H.(2008) *Windsprint 2008 Splittider. Retrieved from www.ssg.se/en/Windsprint/Split-times/ (in Swedish)*
- 110mH mF Andersson, H.(2008) *Windsprint 2008 Splittider. Retrieved from www.ssg.se/en/Windsprint/Split-times/ (in Swedish)*
- 6-Jul **2008 Nambu Chuhei Memorial (Hakodate, JPN)**
- 100m mF, mH, wF, wH Akirabun (2009). *Race analysis of 2008 men's and women's 100m and 110m & 100m hurdles. Bulletin of Studies in Athletics of JAAF, 5, p 53. (in Japanese)*
- 100mH wF Akirabun (2009). *Race analysis of 2008 men's and women's 100m and 110m & 100m hurdles. Bulletin of Studies in Athletics of JAAF, 5, p 55. (in Japanese)*
- 110mH mF, mH Akirabun (2009). *Race analysis of 2008 men's and women's 100m and 110m & 100m hurdles. Bulletin of Studies in Athletics of JAAF, 5, p 55. (in Japanese)*
- 5-Jul **2008 German National Championships (Nurnberg, GER)**
- 100m mF (Unger), wF (sailer) Seeger (2010) - *DLV B-Trainer Ausbildung - sprint (in German)*
- 5-Jul **2008 Japanese National Championships (Kawasaki, JPN)**
- 100m mF, wF Akirabun (2009). *Race analysis of 2008 men's and women's 100m and 110m & 100m hurdles. Bulletin of Studies in Athletics of JAAF, 5, p 53. (in Japanese)*
- 100mH wF Akirabun (2009). *Race analysis of 2008 men's and women's 100m and 110m & 100m hurdles. Bulletin of Studies in Athletics of JAAF, 5, p 55. (in Japanese)*
- 110mH mF Akirabun (2009). *Race analysis of 2008 men's and women's 100m and 110m & 100m hurdles. Bulletin of Studies in Athletics of JAAF, 5, p 55. (in Japanese)*
- 400mH mF, wF Yasunori, M., Yamazaki, K., Yasushi-shi, E., Sugita, M., & Tsuruyo, O. (2009). *Race pattern analysis of Japan prestigious 400m hurdler. Bulletin of Studies in Athletics of JAAF, 5, p64. (in Japanese)*
- 20-Jun **2008 USATF National Junior Championships (Columbus, OH)**
- 100m mF, wF USATF Women's Sprint Development with HPC (2008). *Report from 2008 USATF National Junior Championships.*
- 200m mF, wF USATF Women's Sprint Development with HPC (2008). *Report from 2008 USATF National Junior Championships.*
- 400m
- 100mH
- 110mH
- 400mH
- 12-Jun **2008 Golden Spike (Ostrava, CZE)**
- 110mH mF (robles) Graubner, R., (2008) Retrieved from <http://www.fgs.uni-halle.de> (in German)
- 1-Jun **2008 ISTAF (Berlin, GER)**
- 100mH wF (2) Graubner, R., (2008) Retrieved from <http://www.fgs.uni-halle.de> (TV Analysis) (in German)
- 31-May **2008 Reebok (New York, NY)**
- 100m mF (bolt) Saunders (2011) Retrieved from www.athleticscoaching.ca/member.aspx?p=viewblog&id=15
- 23-May **2008 Good Luck Beijing 2008 Chinese Open (Beijing, CHN)**
- 110mH mF (xie) Wang L., Yin J., Xu Y., Gong M., & Li R. (2016) *Comparative analysis of the grey relational grade of the segment time and final results of the 110m hurdle race of Xie Wenjun and Liu Xiang. Sport Science Research, 37 (5), p. 4. (in Chinese)*
- 18-May **2008 Kanto Championships (Tokyo, JPN)**

- 100m mSF (saito) Takikawa, S., Miyashiro, K., Tsuyoshi, A., Shiraki, J., Nihijima, N., & Ogata, M. (2010) - research on the scientific data utilization model and development process of 100m performance. (In Japanese).
- 10-May **2008 Osaka Grand Prix (Osaka, JPN)**
 100m mF, mB, wF Akirabun (2009). Race analysis of 2008 men's and women's 100m and 110m & 100m hurdles. *Bulletin of Studies in Athletics of JAAF*, 5, p 52. (in Japanese)
 400mH mF (narisako), wF Yasunori (2009). Race pattern analysis of prestigious Japanese 400m hurdlers. *Bulletin of Studies in Athletics of JAAF*, 5, p 64. (in Japanese)
- 9-May **2008 Super Grand Prix (Doha, QAT)**
 200m mF (merritt) Vazel, P.-J. (2011). Speed reserve in the 400m. www.uka.org.uk/coaching.
- 3-May **2008 Shizuoka International Athletics Meeting (Fukuroi, JPN)**
 400mH m2 (narisako), wR2 Yasunori (2009). Race pattern analysis of prestigious Japanese 400m hurdlers. *Bulletin of Studies in Athletics of JAAF*, 5, p 64. (in Japanese)
- 29-Apr **2008 Mikio Oda Memorial (Hiroshima, JPN)**
 100m mF, mB, mH, wF, wB, wH Akirabun (2009). Race analysis of 2008 men's and women's 100m and 110m & 100m hurdles. *Bulletin of Studies in Athletics of JAAF*, 5, p 51. (in Japanese)
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 110mH mF, mH Akirabun (2009). Race analysis of 2008 men's and women's 100m and 110m & 100m hurdles. *Bulletin of Studies in Athletics of JAAF*, 5, p 54. (in Japanese)
- 24-Feb **2008 Spanish National Indoor Championships (Valencia, ESP)**
 60mH mF (quinonez) Frutos (2008) - 7.52 record de españa de 60mv masculino de jackson quiñonez: estudio biomecánico (in Spanish)
- 14-Feb **2008 Asian Indoor Games (Doha, QAT)**
 60m mF Kuitunen, S., Palazzi, D., Poon, S., Williams, B., Glynn, J., & Gesell, J. (2008). Biomechanical analysis of the men's 60m final in asian indoor championships in athletics 2008
- 10-Feb **2008 BW-Bank (Karlsruhe, GER)**
 60mH wF (kallur) Blomkvist, B. (2010) Retrieved from www.sub13.se (in Swedish)
- 30-Sep **2007 Seiko Super Grand Prix (Yokohama, JPN)**
 100m mF Akirabun (2008). 2007 speed analysis of the men's & women's 100m, 100m hurdles, & 110m hurdles. *Bulletin of Studies in Athletics of JAAF*, 4, p 49. (in Japanese)
 100mH wF Akirabun (2008). 2007 speed analysis of the men's & women's 100m, 100m hurdles, & 110m hurdles. *Bulletin of Studies in Athletics of JAAF*, 4, p 51. (in Japanese)
 110mH mF Akirabun (2008). 2007 speed analysis of the men's & women's 100m, 100m hurdles, & 110m hurdles. *Bulletin of Studies in Athletics of JAAF*, 4, p 51. (in Japanese)
- 22-Sep **2007 IAAF World Athletic Final (Stuttgart, GER)**
 100m mF, wF Graubner, R., Bosse, T., & Starke, A. (2007) Retrieved from <http://www.fgs.uni-halle.de> (in German)
 200m mF, wF Graubner, R., Bosse, T., & Starke, A. (2007) Retrieved from <http://www.fgs.uni-halle.de> (in German)
 400m mF, wF Graubner, R., Bosse, T., & Starke, A. (2007) Retrieved from <http://www.fgs.uni-halle.de> (in German)
 100mH wF Graubner, R., Bosse, T., & Starke, A. (2007) Retrieved from <http://www.fgs.uni-halle.de> (in German)
 110mH mF Graubner, R., Bosse, T., & Starke, A. (2007) Retrieved from <http://www.fgs.uni-halle.de> (in German)
 400mH mF, wF Graubner, R., Bosse, T., & Starke, A. (2007) Retrieved from <http://www.fgs.uni-halle.de> (in German)
- 16-Sep **2007 ISTAF (Berlin, GER)**
 400m mF (wariner), wF (richards) Graubner, R., (2008) Retrieved from <http://www.fgs.uni-halle.de> (TV Analysis) (in German)
 100mH wF (kallur) Graubner, R., (2008) Retrieved from <http://www.fgs.uni-halle.de> (TV Analysis) (in German)
- 14-Sep **2007 Memorial Van Damme (Brussels, BEL)**
 100m mF (powell) "ferrari" (2009) - Split 100 metri uomini e donne (www.noivelocisti.net/forum?func=view&catid=9&id=1813)
- 9-Sep **2007 Rieti 2007 (Rieti, ITA)**
 100m mH (powell) Brito (2007) - 100m stats, you may be interested (www.elitetrack.com/forums)
- 31-Aug **2007 IAAF World Championships (Osaka, JPN)**
 100m mF, mSF, mQF, mH Ae, M. (Ed.) (2008) A booklet of biomechanics data in the 11th IAAF World Championships in Athletics Osaka 2007. Japanese Association of Athletic Federations. p. 4-5, 31.
 (Fasuba), wF Akirabun (2008) - the analysis of the 100m races at the 2007 IAAF world championships in athletics
 mSF, mQF, mH Matsuo, A., Tsuchie, H., Yanagiya, T., Hirokawa, R., Sugita, M., & Ae, M. (2009). Analysis of speed patterns in 100m sprints. *Bulletin of Studies in Athletics of JAAF*, 5, p98. (in Japanese).
 wSF (vcb) Matsuo, A., Hirokawa, R., Yanagiya, T., Sugita, M., Tsuchie, H., & Ae, M. (2008). The analysis of 100m races. at the 2007 IAAF world championships in athletics. In Sawaki, K. (Ed.) Japan Biomechanics Research Project in IAAF World Championships in Athletics, Osaka. p6-7. (in Japanese).
 wH (takahashi) Matsuo, A., Hirokawa, R., Yanagiya, T., Sugita, M., Tsuchie, H., & Ae, M. (2008). The analysis of 100m races. at the 2007 IAAF world championships in athletics. In Sawaki, K. (Ed.) Japan Biomechanics Research Project in IAAF World Championships in Athletics, Osaka. p6-7. (in Japanese).
 200m mF(3), wF(3) Ae, M. (Ed.) (2008) A booklet of biomechanics data in the 11th IAAF World Championships in Athletics Osaka 2007. Japanese Association of Athletic Federations. p. 6, 32.
 mF, wF Butler, M. (2013). IAAF world championships statistics handbook- moscow 2013. Monaco, MON; IAAF. p83, 211.
 mF, mSF, mQF Tsuchie (2010) - run speed of the men's 200m at the 2007 Osaka World Championships
 400m mF, wF, wSF Mochida, T., & Sugita, M. (2008). Biomechanical analysis of the 400 metres final race at the 2007 World Championships in Athletics. In Sawaki, K. (Ed.) Japan Biomechanics Research Project in IAAF World Championships in Athletics, Osaka. p54-55. (in Japanese)
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 wF (kallur) Graubner, R., (2009) Retrieved from <http://www.fgs.uni-halle.de> (TV Analysis) (in German)
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- wSF (wilson) Shaver, D. (2008). Hurdle training. 18th NACACTFCA International Athletic Congress
- 7-Aug **2007 DN Galan (Stockholm, SWE)**
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- 3-Aug **2007 Japanese National High School Championships (Saga, JPN)**
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- 23-Jun **2007 USATF National Championship (Indianapolis, IN)**
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- 400mH mF Yasunori (2008). Race pattern analysis of the world and Japanese top 400m hurdlers. *Bulletin of Studies in Athletics of JAAF*, 4, p100. (in Japanese)
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- 100m
- 200m wF (richards) Graubner, R. (2008) Retrieved from <http://www.fgs.uni-halle.de> (TV Analysis) (in German)
- 400m wF (richards) Graubner, R. (2008) Retrieved from <http://www.fgs.uni-halle.de> (TV Analysis) (in German)
- 100mH
- 110mH mF (johnson) Graubner, R. (2008) Retrieved from <http://www.fgs.uni-halle.de> (TV Analysis) (in German)
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- 10-Sep **2006 IAAF World Athletic Final (Stuttgart, GER)**
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- 18-Aug **2006 Weltklasse (Zurich, SUI)**
- 100m mF (powell, gay) Saunders (2011) - www.athleticscoaching.ca/member.aspx?p=viewblog&id=15
- 5-Aug **2006 Canadian National Championships (Ottawa, CAN)**
- 100mH wF (felicien) Winckler, G. (2009) Sprint hurdles: Physical preparation. UK Athletics National Coaching Conference: Physical Preparation, Birmingham, UK
- 30-Jul **2006 DLV Gala (Nurnberg, GER)**
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- 22-Jul **2006 German National Junior Championships (Ulm, GER)**
- 110mH mF (dittmer) Killing, W., & Hommel, H. (2006). Werrmann und Dittmer im vergleich. *Leichtathletiktraining*, 17(11), p17. (in German)
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- 400mH mF Yasunori (2007). Race pattern analysis of top Japanese 400m hurdlers. *Bulletin of Studies in Athletics of JAAF*, 3, p 95. (in Japanese)
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- 110mH mF *USATF Men's Hurdle Development (2006). Report from 2006 USATF National Championships.*
- 400mH mF *USATF Men's Hurdle Development (2006). Report from 2006 USATF National Championships.*
- 11-Jun **2006 Norwich Union (Gateshead, GBR)**
100m mF (powell) *Brito (2007) - 100m stats, you may be interested (www.elitetrack.com/forums)*
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- 12-May **2006 Doha Super Grand Prix (Doha, QAT)**
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- 6-May **2006 Osaka Grand Prix (Osaka, JPN)**
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- 26-Jan **2006 Telstra A Series (Canberra, AUS)**
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- 12-Oct **2005 Chinese National Games (Nanjing, CHN)**
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- 15-Aug **2005 Weltklasse (Zurich, SUI)**
400m wF *ferrari (2009) - Split 100 metri uomini e donne (www.noivelocisti.net/forum?func=view&catid=9&id=1813)*
- 13-Aug **2005 IAAF World Championships (Helsinki, FIN)**
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200m wSF (arron) *Butler, M. (2013). IAAF world championships statistics handbook- moscow 2013. Monaco, MON; IAAF. p211.*
400m mF (wariner) *ferrari (2009) - Split 100 metri uomini e donne (www.noivelocisti.net/forum?func=view&catid=9&id=1813)*
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wF (richards) *Vazel, P.-J. (2011). Speed reserve in the 400m. www.uka.org.uk/coaching.*
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110mH mF (doucoure) *Longuevre, R. (2005). Helsinki 2005 - Les haies: Cinq qualifiées et un titre mondial. Revue de l'AEFA, (179), p16. (in French)*
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- 16-Aug **2005 European U23 Championships (Erfurt, GER)**
100m mF (weiser), mH (wieser) *Graubner, R. (2005). Wettkampfanalytische untersuchung der sprintleistungsfähigkeit bei nachwuchssprinterinnen und -sprintern bei den U23-Europameisterschaften 2005 in Erfurt nachwuchssprinterin und sprintern. p220. (in German)*
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- 14-Jul **2005 IAAF World Youth Championships (Marrakech, MAR)**
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- 3-Jul **2005 German National Championships (Wattenscheid, GER)**
200m mF (unger) *Graubner, R. (2008) Retrieved from http://www.fgs.uni-halle.de (in German)*
- 25-Jun **2005 USATF National Championship (Carson, CA)**
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- 12-Jun **2005 DKB-DLV (Ulm, GER)**
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- 14-Jun **2005 Tsiklitiria Super Grand Prix (Athens, GRE)**
 100m mF (powell) Saunders (2011) - www.athleticscoaching.ca/member.aspx?p=viewblog&id=15
- 11-Jun **2005 NCAA Championships (Sacramento, CA)**
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- 4-Jun **2005 Japanese National Championships (Tokyo, JPN)**
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- 7-May **2005 Jamaica Invitational (Kingston, JAM)**
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- 7-May **2005 Osaka Grand Prix (Osaka, JPN)**
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- 24-Sep **2004 ??? (Busan, KOR)**
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- 23-Sep **2004 Seiko Super Grand Prix (Yokohama, JPN)**
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- 22-Aug **2004 Olympic Games (Athens, GRE)**
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 400mH mF, wF Ruiz (2004) - las carreras con vallas de juegos olimpicos de atenas '04 (in Spanish)
 mF, wF Behm, J.-J. (2005). Athènes 2004: Les Haies Basses. Revue de l'AEFA, p16, 18. (in French)
- 8-Aug **2004 Leichtathletik Team Challenge (Munich, GER)**
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- 6-Aug **2004 Weltklasse (Zurich, SUI)**
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- 1-Aug **2004 Chinese National Grand Prix (Tianjin, CHN)**
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 100mH wF, wH (felicien) Winckler, G. (2009) Sprint hurdles: Physical preparation. UK Athletics National Coaching Conference: Physical Preparation, Birmingham, UK
- 11-Jul **2004 USA Olympic Trials (Sacramento, CA)**
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- 12-Jun **2004 Atletica (Genève, SUI)**
110mH mF (monachon) Weber (2004) - wettkampfauswertung 110m hürden (in German)
- 5-Jun **2004 Japanese National Championships (Tottori, JPN)**
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- 15-Apr **2004 Mt. SAC Relays (Walnut, CA)**
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- 8-May **2004 Osaka Grand Prix (Osaka, JPN)**
110mH mF (liu) Zhang S. (2005) *Technical characteristics analysis of 110m hurdles race of Liu Xiang. (Dissertation). p. 8. (in Chinese)*
400mH mF Yasunori, M., (2005). Race pattern analysis of top Japanese 400m hurdlers. *Bulletin of Studies in Athletics of JAAF*, 1, p 112. (in Japanese)
- 10-Apr **2004 UCLA (Los Angeles, CA)**
400mH wF (addy) Henson (2004). Coaching observations. *USATF OTC sport science*.
- 20-Mar **2004 SDSU (San Diego, CA)**
400mH wF (taylor) Henson (2004). Coaching observations. *USATF OTC sport science*.
- 13-Jun **2004 DLV-Gala (Erfurt, GER)**
400m mF (canal) Graubner, R. (2007) Retrieved from <http://www.fgs.uni-halle.de> (in German)
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- 14-Sep **2003 Chinese National Championships (Shanghai, CHN)**
400mH mF (shao) Zhou P. (2003) *Training of Shao Yi, national champion of men's 400m hurdles. Shanghai Sport Science Research* 24 (6), p. 55. (in Chinese)
- 26-Aug **2003 IAAF World Championships (Paris, FRA)**
100m
200m mSF, mQF, mH (cavallaro) Di Mulo, F. (2009). *Mezzi e metodi di allenamento dello sprinter di elevato livello. Atleticastudi*, p143. (in Italian)
400m mF, wF Bonvin, P. (2003). *Paris 2003: Compte-rendu 400m et relais 4x 400m. Revue de l'AEFA*, p23. (in French)
wF (guevara) Smith, M. (2005). *High performance sprinting. Wiltshire, UK; Crowood Press*. p67-68.
100mH wF (felicien) Winckler, G. (2009) *Sprint hurdles: Physical preparation. UK Athletics National Coaching Conference: Physical Preparation, Birmingham, UK*
110mH mF (johnson) Leynier, P. (2003). *Paris 2003: Haies - Le 100m haies, Le 110m haies. Revue de l'AEFA*, p41, 43. (in French)
mF (trammell, liu) Xu Y., & Mi W. (2004). *An analysis on the hurdling techniques of the excellence chinese male 110m hurdle athletes. 2004 Pre-Olympic Congress: Thessaloniki, GRE.*
mF (shi) Yao G., Zhou Y., Ma X., Zhang H. (2012). *Research on rhythm training methods between men's straight hurdles. p. 2. (in Chinese)*
400mH mF, mSF, mH, wF Behm, J.-J. (2003). *Paris 2003: Le quatrache masculin - féminin. Revue de l'AEFA*, p45-46. (in French)
- 8-Aug **2003 Russian National Championships (Tula, RUS)**
400mH wF (pechonkina) Vazel, P.J. (2019). *Statistical analysis and historical context of the new 400H world record.* <https://altis.world/articles/statistical-analysis-and-historical-context-of-the-new-400h-world-record/>
- 22-Jun **2003 USATF National Championship (Palo Alto, CA)**
100m mF, mjrF, wF, wjrF *USATF Women's Sprint Development (2003). Report from 2003 USATF National Championships.*
200m mF, mjrF, wF, wjrF *USATF Women's Sprint Development (2003). Report from 2003 USATF National Championships.*
400m mF, mSF, mjrF, wF, wSF, wjrF *USATF Women's Sprint Development (2003). Report from 2003 USATF National Championships.*
100mH wF, wjrF *USATF Women's Sprint Development (2003). Report from 2003 USATF National Championships.*
110mH mF, mjrF *USATF Women's Sprint Development (2003). Report from 2003 USATF National Championships.*
400mH mF, mjrF, wF, wjrF *USATF Women's Sprint Development (2003). Report from 2003 USATF National Championships.*
- 1-Jul **2003 Athletissima Meeting (Lausanne, SUI)**
110mH mF Xu Y., Mi W., & Zhang M. (2004) *An analysis of Liu Xiang's technique in 100m hurdle final at the Athens Olympic Games. Sport Science Research*, 25 (6), p.27.
mF (olijar) Zhang S. (2005). *Technical characteristics analysis of 110m hurdles race of Liu Xiang. Social Sciences II*, p6. (in Chinese)
- 13-Jun **2003 ??? (Shanghai, CHN)**
400mH mH (shao) Zhou P. (2003) *Training of Shao Yi, national champion of men's 400m hurdles. Shanghai Sport Science Research* 24 (6), p. 55. (in Chinese)
- 5-Apr **2003 Chinese National Grand Prix (Nanning, CHN)**
110mH mR1 (liu) Wang L., Yin J., Xu Y., Gong M., & Li R. (2016) *Comparative analysis of the grey relational grade of the segment time and final results of the 110m hurdle race of Xie Wenjun and Liu Xiang. Sport Science Research*, 37 (5), p. 3. (in Chinese)
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- 27-Oct **2002 Chinese National Grand Prix Final (Tiantai, CHN)**
400mH mF (shao) Zhou P. (2003) *Training of Shao Yi, national champion of men's 400m hurdles. Shanghai Sport Science Research* 24 (6), p. 55. (in Chinese)
- 21-Sep **2002 IAAF World Cup (Madrid, ESP)**
100mH wF Sanchez (2002) - *copa del mundo de Madrid '02: análisis de la carreras con villas (in Spanish)*
110mH mF Sanchez (2002) - *copa del mundo de Madrid '02: análisis de la carreras con villas (in Spanish)*
400mH mF, wF Sanchez (2002) - *copa del mundo de Madrid '02: análisis de la carreras con villas (in Spanish)*
- 14-Sep **2002 IAAF Grand Prix Final (Paris, FRA)**
100m mF (montgomery) Lee, J. (2008). *Usain Bolt 100m 10 meter Splits and Speed Endurance. speedendurance.com/2008/08/22/usain-bolt-100m-10-meter-splits-and-speed-endurance/*

- mF Brito (2007) - 100m stats, you may be interested (www.elitetrack.com/forums)
- 7-Aug **2002 European Championships (Munich, GER)**
 100m mF, mSF, mQF, mH, wF, wSF, wH Graubner, R., Heß, W.-D., & Ringel, K. (2009) Retrieved from <http://www.fgs.uni-halle.de> (in German)
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 100mH wF, wSF, wH Graubner, R., Heß, W.-D., & Ringel, K. (2009) Retrieved from <http://www.fgs.uni-halle.de> (in German)
 110mH mF, mSF, mH Graubner, R., Heß, W.-D., & Ringel, K. (2009) Retrieved from <http://www.fgs.uni-halle.de> (in German)
 400mH mF, mSF, mH, wF, wH Graubner, R., Heß, W.-D., & Ringel, K. (2009) Retrieved from <http://www.fgs.uni-halle.de> (in German)
- 6-Jul **2002 German National Championships (Bochum-Wattenscheid, GER)**
 400m mF (schultz) Graubner, R. (2007) Retrieved from <http://www.fgs.uni-halle.de> (in German)
- 19-Jul **2002 Herculis (Monaco, MON)**
 400m wF (fenton) Veney - split times from PJ
- 2002 USATF National Championship (Palo Alto, CA)**
 100m
 200m
 400m
 100mH
 110mH
 400mH
- 19-May **2002 Chinese National Grand Prix (Shanghai, CHN)**
 110mH mF (liu) Huang Y., Yu Y., Guo J., & Han A. (2002). Technical research on the men's 110m hurdles at the 9th national games. 10th National Congress of Sports Biomechanics, Shijiazhuang, Hebei, China. p461. (in Chinese)
- 16-Feb **2002 German National Indoor Championships (Sindelfingen, GER)**
 100mH wF Hücklekemkes, J. (2002). Explosive starten vielfältig erlernen. Leichtathletiktraining, 13(4), p5. (in German)
- 18-Nov **2001 Chinese National Games (Beijing, CHN)**
 100mH wF (su) Xu (2007) Comparative study on technical parameters of china & world female 100m hurdlers. (in Chinese)
 wF (zeng) Huang Y., Guo J., Yu Y., & Han J. (2003) Research on the technique of excellent female 100m hurdles athletes. Journal of Xi'an Institute of Physical Education, 20 (5). p. 5. (in Chinese)
 400m wH2 (xiao) Wang H. (2012). Research on the analysis of the speed distribution of China's outstanding female 400-meter runners. JOURNAL NAME ???, 38. p. 24. (in Chinese)
 110mH mF (chen) Huang Y., Yu Y., Guo J., & Han A. (2002). Technical research on the men's 110m hurdles at the 9th national games. 10th National Congress of Sports Biomechanics, Shijiazhuang, Hebei, China. p461. (in Chinese)
 400mH mF Gong M., Huang Y., & Guo J. (2003) Discussion on technique of gold and silver medallists of men's 400m hurdles of the 9th National Games. Journal of Shanghai Physical Education Institute, 27 (1), p43. (in Chinese)
 wF (song, huang) Lu W., Guo J., Xu J., & Yu Y. (2002). Technical analysis of women's 400m hurdles champion and runner-up at the 9th national games. 10th National Congress of Sports Biomechanics, Shijiazhuang, Hebei, China. p272. (in Chinese)
- 31-Aug **2001 ISTAF (Berlin, GER)**
 100m mF, wF Graubner, R., Heß, W.-D., Bosse, T., & Schulz, H. (2009) Retrieved from <http://www.fgs.uni-halle.de> (in German)
 400m wF (3) Graubner, R., Heß, W.-D., Bosse, T., & Schulz, H. (2009) Retrieved from <http://www.fgs.uni-halle.de> (in German)
 110mH mF Graubner, R., Heß, W.-D., Bosse, T., & Schulz, H. (2009) Retrieved from <http://www.fgs.uni-halle.de> (in German)
 400mH wF Graubner, R., Heß, W.-D., Bosse, T., & Schulz, H. (2009) Retrieved from <http://www.fgs.uni-halle.de> (in German)
- 8-Aug **2001 IAAF World Championships (Edmonton, CAN)**
 100m mF (2), wF(2) Veney - split times from PJ
 200m mF, wF Butler, M. (2013). IAAF world championships statistics handbook- moscow 2013. Monaco, MON; IAAF. p82, 210.
 400m
 100mH wF, wSF Winckler, G. (2009) Sprint hurdles: Physical preparation. UK Athletics National Coaching Conference: Physical Preparation, Birmingham, UK
 110mH
 400mH mF, wF Behm, J.-J. (2001) Edmonton: Le quatrache: les finales. Revue de l'AEFA. p. 29-30.(in French)
 mF (tamesue) Kota, T., Fukuda, A., Kazuhito, K., Kohei, Y., Yamamoto, M., & Ando, K. (2016). 69th high school championships: JAF scientific committee - biomechanics data collection. p. 21. (in Japanese)
 wSF (glover) Behm, J.-J. (2001). Profil des finales d'Edmonton. In Leynier, P. (Ed). Athl'haies, (16), p8. (in French)
- 20-Jul **2001 European Junior Championships (Grosseto, ITA)**
 400mH wH (dercke) Leynier, P. (2001). Championnats d'Europe Juniors. In Leynier, P. (Ed). Athl'haies, (15), p11. (in French)
- 30-Jun **2001 German National Championships (Stuttgart, GER)**
 100m wF (rockmeier) Graubner, R. (2007) Retrieved from <http://www.fgs.uni-halle.de> (in German)
- 23-Jun **2001 European Cup (Bremen, GER)**
 100m mF, mB, mC, wF, wB, wC Graubner, R., Heß, W.-D., Bosse, T., Klockmann, M., & Ringel, K. (2007) Retrieved from <http://www.fgs.uni-halle.de> (in German)
 200m mF, wF Graubner, R., Heß, W.-D., Bosse, T., Klockmann, M., & Ringel, K. (2007) Retrieved from <http://www.fgs.uni-halle.de> (in German)

400m mF, wF Graubner, R., Heß, W.-D., Bosse, T., Klockmann, M., & Ringel, K. (2007) Retrieved from <http://www.fgs.uni-halle.de> (in German)

100mH wF Graubner, R., Heß, W.-D., Bosse, T., Klockmann, M., & Ringel, K. (2007) Retrieved from <http://www.fgs.uni-halle.de> (in German)

110mH mF Graubner, R., Heß, W.-D., Bosse, T., Klockmann, M., & Ringel, K. (2007) Retrieved from <http://www.fgs.uni-halle.de> (in German)

400mH mF, wF Graubner, R., Heß, W.-D., Bosse, T., Klockmann, M., & Ringel, K. (2007) Retrieved from <http://www.fgs.uni-halle.de> (in German)

2001 USATF National Championship (Eugene, OR)

100m
200m
400m
100mH
110mH
400mH

10-Jul **2000 ??? (Torino, ITA)**
200m mF (cavallaro) Di Mulo, F. (2009). *Mezzi e metodi di allenamento dello sprinter di elevato livello. Atleticastudi*, p143. (in Italian)

6-May **2001 Chinese National Grand Prix (Shanghai, CHN)**
110mH mF Fang S. (2001) *Analysis on technical characteristics in Liu Xiang's 110m hurdles. Chinese Athletic Association*, 9. p. 15 (in Chinese)

28-Apr **2001 Chinese National Grand Prix (Ningbo, CHN)**
110mH mF Fang S. (2001) *Analysis on technical characteristics in Liu Xiang's 110m hurdles. Chinese Athletic Association*, 9. p. 15 (in Chinese)

2000 Olympic Games (Sydney, AUS)

100m mF (greene) Brito (2007) - 100m stats, you may be interested (www.elitetrack.com/forums)
wF Veney - sydney 100m women's times
200m wF(jones, freeman) Veney - 200m women from PJ
400m mF, wF Behm, J.-J. (2000). *Sydney 2000: Compte-rendu du 400m haies. Revue de l'AEFA*, p20. (in French)
mF, wF Butler, M. (2016). *IAAF statistics handbook- Special edition: Games of the XXXI Olympiad- Rio 2016. IAAF Communications Department*, p86, 234.

100mH
110mH

400mH mF, mSF, mH Ditroilo, M., & Marini, M. (2001). *Analysis of the race distribution for male 400m hurdlers competing at the 2000 Sydney Olympic Games. New Studies in Athletics*, 16(3), p17-23.
wF Behm, J.-J. (2000). *Sydney 2000: Compte-rendu du 400m haies. Revue de l'AEFA*, p21. (in French)

2000 ISTAF (Berlin, GER)

100m mF, wF, wB Graubner, R. & Heß, W.-D. (2009) Retrieved from <http://www.fgs.uni-halle.de> (in German)
400m mF (4) Graubner, R. & Heß, W.-D. (2009) Retrieved from <http://www.fgs.uni-halle.de> (in German)
100mH wF Graubner, R. & Heß, W.-D. (2009) Retrieved from <http://www.fgs.uni-halle.de> (in German)
110mH mF Graubner, R. & Heß, W.-D. (2009) Retrieved from <http://www.fgs.uni-halle.de> (in German)
400mH mF Graubner, R. & Heß, W.-D. (2009) Retrieved from <http://www.fgs.uni-halle.de> (in German)

2000 USATF Olympic Trials (Sacramento, CA)

100m wF Lyle, B. (2000) *Miscellaneous coaching notes*
200m wF Hymans, R. (2008) *the history of the US olympic trials - track and field. Indianapolis, IN: USA Track & Field*. p. 275.
mF (capel), mSF2 Hymans, R. (2020). *History of the US olympic trials - track and field. Los Altos, CA: Track and Field News*. p2. Retrieved from: <https://trackandfieldnews.com/wp-content/uploads/2019/10/2000.pdf>
400m mF, wF Hymans, R. (2008) *the history of the US olympic trials - track and field. Indianapolis, IN: USA Track & Field*. p. 267, 276.

100mH
110mH
400mH

1999 IAAF World Championships (Seville, ESP)

100m mF, wF Ferro, A., Rivera, A., Pagola, I., Ferreruella, M., Martin, Á., & Rocandío, V. (2001). *Biomechanical analysis of the 7th world championships in athletics seville 1999. New Studies of Athletics*, 16 (1/2), p29-35, 37-43.
200m mF, wF Ferro, A., Rivera, A., Pagola, I., Ferreruella, M., Martin, Á., & Rocandío, V. (2001). *Biomechanical analysis of the 7th world championships in athletics seville 1999. New Studies of Athletics*, 16 (1/2), p45-47, 49-51.
mH (eriksson) Andersson, H.(2007) *Windsprint 2007 Splittider*. Retrieved from www.ssg.se/en/Windsprint/Split-times/ (in Swedish)
wSF Graubner, R. (2008) Retrieved from <http://www.fgs.uni-halle.de> (TV Analysis) (in German)
400m mF, wF Ferro, A., Rivera, A., Pagola, I., Ferreruella, M., Martin, Á., & Rocandío, V. (2001). *Biomechanical analysis of the 7th world championships in athletics seville 1999. New Studies of Athletics*, 16 (1/2), p53-55, 57-59.
100mH wF, wSF, wQF, wH Sanchez (1999) - *Sevilla '99: análisis de la carreras con villas (in Spanish)*
110mH mF, mSF, mQF, mH Sanchez (1999) - *Sevilla '99: análisis de la carreras con villas (in Spanish)*
400mH mF, mSF, mH, wF, wSF, wH Sanchez (1999) - *Sevilla '99: análisis de la carreras con villas (in Spanish)*

1999 European Junior Championships (Riga, LAT)

200m mH (cavallaro) Di Mulo, F. (2009). *Mezzi e metodi di allenamento dello sprinter di elevato livello. Atleticastudi*, p143. (in Italian)

1999 FRA vs ITA vs ??? 3 Nations (Albertville, FRA)

200m mF (cavallaro) Di Mulo, F. (2009). *Mezzi e metodi di allenamento dello sprinter di elevato livello. Atleticastudi*, p143. (in Italian)

1999 Tsiklitiria Grand Prix II (Athens, GRE)

- 100m mF (greene) Lee, J. (2008). Usain Bolt 100m 10 meter Splits and Speed Endurance. speedendurance.com/2008/08/22/usain-bolt-100m-10-meter-splits-and-speed-endurance/
- 13-Jun **1999 LIVE (Nurnberg, GER)**
100m mF (surin) Graubner, R. (2007) Retrieved from <http://www.fgs.uni-halle.de> (in German)
- 10-Jun **1999 Ericsson (Helsinki, FIN)**
200m wF (jones) Graubner, R. (2008) Retrieved from <http://www.fgs.uni-halle.de> (TV Analysis) (in German)
- 6-Mar **1999 NCAA Indoor Championships (Indianapolis, IN)**
60m wF Winckler (2008) - running parameters
- 20-Feb **1999 Sydney Grand Prix (Sydney, AUS)**
110mH mF (jackson) Arnold, J. (2009). UK Athletics - Hurdling Masterclass; London, UK.
- 11-Sep **1998 IAAF World Cup (Johannesburg, RSA)**
200m wF (jones, ogunkoya) Veney - 200m women from PJ
- 20-Aug **1998 European Championships (Budapest, HUN)**
200m mH (bittner) Veney - split times from PJ
100mH wF Sanchez (1998) - Budapest '98: análisis de la carreras con villas (in Spanish)
110mH mF Sanchez (1998) - Budapest '98: análisis de la carreras con villas (in Spanish)
400mH mF Behm, J.-J. (1998). Analyse et commentaries: Le 400m haies: Pavel la surprise! Revue de l'AEFA, (151), p22. (in French)
mF, wF Sanchez (1999) - Sevilla '99: análisis de la carreras con villas (in Spanish)
- 2-Aug **1998 Spanish National Championships (San Sebastián, ESP)**
100mH wF Ruiz (1998) - campeonato des españa absoluto: análisis de la carreras con villas (in Spanish)
110mH mF Ruiz (1998) - campeonato des españa absoluto: análisis de la carreras con villas (in Spanish)
400mH mF, mSF, wF Ruiz (1998) - campeonato des españa absoluto: análisis de la carreras con villas (in Spanish)
- 20-Jun **1998 USATF National Championship (New Orleans, LA)**
100mH wH (morrison) Mann (1998) - usatf elite sprint & hurdle summit
- 12-May **1998 ??? (Chengdu, CHN)**
110mH mF (chen) Yuan Y., & Lu J. (1998). Chen Yanhao analysis of 110m results. Social Sciences II, p6. (in Chinese)
- 19-Oct **1997 Chinese National Games (Shanghai, CHN)**
110mH mF (chen) Zhang Y. (1999) Analysis of 110m hurdles of Chen Yanhao. Chinese Athletic Association, 7. p. 17 (in Chinese)
- 3-Aug **1997 IAAF World Championships (Athens, GRE)**
100m mF, wF Ritzdorf, W. (1997). 100 meters. In Müller, H., & Hommel, H. (Eds.) Biomechanical research project at the VI th world championships in athletics, Athens 1997: preliminary report. New Studies in Athletics, 12(2), p46-47.
200m mF, wF Ritzdorf, W. (1997). 200 meters. In Müller, H., & Hommel, H. (Eds.) Biomechanical research project at the VI th world championships in athletics, Athens 1997: preliminary report. New Studies in Athletics, 12(2), p48-49.
400m mF, wF Ritzdorf, W. (1997). 400 meters. In Müller, H., & Hommel, H. (Eds.) Biomechanical research project at the VI th world championships in athletics, Athens 1997: preliminary report. New Studies in Athletics, 12(2), p50-51.
mSF (johnson) Bondachuk, A.P. (2007) - Transfer of training in sports. Michigan, USA: Ultimate Athlete Concepts. p. 185.
100mH wF Hommel, H. (1997). 110 and 100 meters hurdles. In Müller, H., & Hommel, H. (Eds.) Biomechanical research project at the VI th world championships in athletics, Athens 1997: preliminary report. New Studies in Athletics, 12(2), p56.
110mH mF Hommel, H. (1997). 400 meters hurdles. In Müller, H., & Hommel, H. (Eds.) Biomechanical research project at the VI th world championships in athletics, Athens 1997: preliminary report. New Studies in Athletics, 12(2), p51, 53.
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- 28-Jun **1997 German National Championships (Frankfurt, GER)**
100m wF (paschke) Groser, & Renner (2007). Schnelligkeitstraining: Grundlagen, methoden, leistungssteuerung, programme für all sportart. München, GER; BLV Buchverlag GmbH & Co.KG. p 123 (in German)
- 21-Jun **1997 European Cup (Munich, GER)**
100m mF, wF Jung, K., Heß, W.-D., Graubner, R., Fromm, A., & Dockhorn, K. (2003) Retrieved from <http://www.fgs.uni-halle.de> (in German)
200m mF, wF Jung, K., Heß, W.-D., Graubner, R., Fromm, A., & Dockhorn, K. (2003) Retrieved from <http://www.fgs.uni-halle.de> (in German)
400m mF, wF Jung, K., Heß, W.-D., Graubner, R., Fromm, A., & Dockhorn, K. (2003) Retrieved from <http://www.fgs.uni-halle.de> (in German)
100mH wF Jung, K., Heß, W.-D., Graubner, R., Fromm, A., & Dockhorn, K. (2003) Retrieved from <http://www.fgs.uni-halle.de> (in German)
110mH mF Jung, K., Heß, W.-D., Graubner, R., Fromm, A., & Dockhorn, K. (2003) Retrieved from <http://www.fgs.uni-halle.de> (in German)
400mH mF, wF Jung, K., Heß, W.-D., Graubner, R., Fromm, A., & Dockhorn, K. (2003) Retrieved from <http://www.fgs.uni-halle.de> (in German)
- 13-Jun **1997 Weltklasse (Stuttgart, GER)**
100m mF (greene) Arakelyan, E. (1998) Whether deliberate analysis? Legkaya Atletika, 6(4). p. 17. (in Russian)
- 13-Jun **1997 LIVE (Nurnberg, GER)**
100m mF (bailey) Groser, & Renner (2007). Schnelligkeitstraining: Grundlagen, methoden, leistungssteuerung, programme für all sportart. München, GER; BLV Buchverlag GmbH & Co.KG. p 126 (in German)
- 8-Jun **1997 Sparkasse (Dortmund, GER)**
100m wF (philipp) Graubner, R. (2007) Retrieved from <http://www.fgs.uni-halle.de> (in German)
- 31-May **1997 "World's Fastest Man" (Toronto, CAN)**
150m mF Vazel, P.-J. (2009) Le blog du sprint Retrieved from <http://futaranterieur.wordpress.com/> (in French)
- 18-May **1997 Southeastern Conference Championships (Auburn, AL)**

- 14-Oct 100mH wF (walker) Shaver, D. (2002). *Hurdle training design*. USATF Advanced Sprints Summit; Boise, ID.
 1996 ??? (Hiroshima, JPN)
 400mH mF (tamesue) Kishima, T., Fukuda, K., Onishi, K., & Hikaru, A. (2022). 75th high school championships: biomechanics data collection. p. 14. (in Japanese)
- 23-Aug 1996 Memorial Van Damme (Brussels, BEL)
 110mH mF (johnson) Shi Y. (2013). A comprehensive study of the "three characteristics" of the men's 110m hurdles. *Social Sciences II*, p22. (in Chinese)
- 10-Aug 1996 Herculis (Monaco, MON)
 400m wF (perec) Vazel, P.-J. (2018.07.20) Retrieved from <https://twitter.com/pjvazel>
- 1-Aug 1996 Olympic Games (Atlanta, GA)
 100m mF (4) Groser, & Renner (2007). *Schnelligkeitstraining: Grundlagen, methoden, leistungssteuerung, programme für all sportart*. München, GER; BLV Buchverlag GmbH & Co.KG. p 123 (in German)
 mH (chen) Chen Y. (2012). Comparison of technical characteristics and development trends of Chinese and foreign men's 100-meter sports. *Social Sciences II*, p82. (in Chinese)
 wSF (ottey) Ritzdorf, W. (1997). 100 meters. In Müller, H., & Hommel, H. (Eds.) *Biomechanical research project at the VI th world championships in athletics, Athens 1997: preliminary report*. *New Studies in Athletics*, 12(2), p47.
 200m mF, wF Veney - split times from PJ
 mF (williams, marsh) Maisetti, J. (1996). *Observation des courses de vitesse d'Atlanta*. *Revue de l'AEFA*, (143), p10. (in French)
 wSF (perec) Vazel, P.-J. (2011). *Speed reserve in the 400m*. www.uka.org.uk/coaching.
 400m mF (johnson), wF (perec) Urtebise, F. (1996). *Atlanta 1996 : 400m*. *Revue de l'AEFA*, (143), p11. (in French)
 wF (freeman) Vazel, P.-J. (2011). *Speed reserve in the 400m*. www.uka.org.uk/coaching.
 mF, wF, wSF Butler, M. (2016). *IAAF statistics handbook- Special edition: Games of the XXXI Olympiad- Rio 2016*. IAAF Communications Department, p85, 234.
 100mH wF Butler, M. (2016). *IAAF statistics handbook- Special edition: Games of the XXXI Olympiad- Rio 2016*. IAAF Communications Department, p253.
 110mH mF Butler, M. (2016). *IAAF statistics handbook- Special edition: Games of the XXXI Olympiad- Rio 2016*. IAAF Communications Department, p128.
 400mH mF, wF McFarlane, B. (2000). *The science of hurdling and speed*. Ottawa, ONT; The Canadian Track and Field Association. p26-27.
 mF, wF Behm (1996) - 400m haies
- 6-Jul 1996 ??? (Tarare, FRA)
 400mH wF Veney - split times from PJ
- 3-Jul 1996 Athletissima (Laussane, SUI)
 400m mF (johnson) ferrari (2009) - Split 100 metri uomini e donne (www.noivelocisti.net/forum?func=view&catid=9&id=1813)
- 29-Jun 1996 ??? (Lisboa, POR)
 100mH wF (bukovec) Coh, M., Kastelic, J., & Pintaric, S. (1998). A biomechanical model of the 100m hurdles of Birgita Bukovec. *Track Coach*, (142), p5429.
- 28-Jun 1996 USATF National Junior Championships (Delaware, OH)
 100m wF USATF Women's Sprint Development (1996). Report from 1996 USATF National Junior Championships
 200m wF USATF Women's Sprint Development (1996). Report from 1996 USATF National Junior Championships
 400m wF USATF Women's Sprint Development (1996). Report from 1996 USATF National Junior Championships
 100mH wF USATF Women's Sprint Development (1996). Report from 1996 USATF National Junior Championships
 110mH
 400mH wF USATF Women's Sprint Development (1996). Report from 1996 USATF National Junior Championships
- ??? 1996 French National Championships (Evry, FRA)
 400mH mF (mbaye) Veney - split times from PJ
- 23-Jun 1996 USA Olympic Trials (Atlanta, GA)
 100m mF, wF, wSF USATF Women's Sprint Development (1996). Report from 1996 USA Olympic Trials
 200m mF, mSF, wF, wSF USATF Women's Sprint Development (1996). Report from 1996 USA Olympic Trials
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 wF USATF Women's Sprint Development (1996). Report from 1996 USA Olympic Trials
- 21-Jun 1996 German National Championships (Köln, GER)
 100m wF (paschke) Graubner, R. (2007) Retrieved from <http://www.fgs.uni-halle.de> (in German)
 100mH wSF (jung) Hommel ??? (in German)
- 12-Jun 1996 DLV Leichtathletik Gala (Duisburg, GER)
 100m mF (bailey) Graubner, R. (2007) Retrieved from <http://www.fgs.uni-halle.de> (in German)
 200m mF (fredricks) Graubner, R. (2008) Retrieved from <http://www.fgs.uni-halle.de> (in German)
- 7-Jun 1996 LIVE (Nürnberg, GER)
 110mH mF (schwarthoff) Graubner, R. (2009) Retrieved from <http://www.fgs.uni-halle.de> (in German)
- 10-Feb 1996 French International Indoor Championships (Bercy, FRA)
 60m mF, mH, wF, wH Gajer, B., Aubert, F., Maisetti, J., Mathieu, C., Morth, S., & Rega, C. (1996). *Analyse des frequences, amplitudes et vitesse pour les courses de 60m aux internationaux de France d'athletisme*. *Revue de l'AEFA*, (142), p33. (in French)
- 19-Aug 1995 Weltklasse (Zurich, SUI)
 400mH wF (perec) Veney - split times from PJ

- 11-Aug **1995 IAAF World Championships (Göteborg, SWE)**
 100m
 200m mF (johnson) Vazel, P.-J. (2011). *Speed reserve in the 400m*. www.uka.org.uk/coaching.
 wF Veney - 200m women from PJ
 400m mF (johnson) Pariente, R., Billouin, A. (2003). *La fabuleuse histoire de l'athlétisme*. Paris: Minerva. p187. (in Spanish)
 wF (pérec, freeman) Butler, M. (2013). *IAAF world championships statistics handbook- moscow 2013*. Monaco, MON; IAAF. p215.
 100mH
 110mH
 400mH mF, wF Behm, J.-J. (1999). - *Les chiffres: Les podiums de tous les championnats et les world records depuis le synthétique: en 68: Hommes - en 78: Femmes*. Revue de l'AEFA, p50-51. (in French)
 wF (buford) Winckler/USATF (2001) - *Level II: sprints, hurdles, and relays*
- 28-Jul **1995 European Junior Championships (Nyiregyhaza, HUN)**
 400mH mH Hommel, H. (2007). *Sprinttechnik beobachten und analysieren! Leichtathletiktraining*, 18(2+3), p71. (in German)
- 21-Jul **1995 Bislett Games (Oslo, NOR)**
 400m wF (pérec) Behm, J.-J. (1999). *Les 4 travaux de Marie-Jo*. Revue de l'AEFA, p54. (in French)
- 8-Jul **1995 ??? (Postojna, SLO)**
 100mH wF (bukovec) Coh, M., & Dolenc, A. (1996). *Three-dimensional kinematic analysis of the hurdles technique used by Brigita Bukovec*. *New Studies in Athletics*, 11(1), p64.
- 5-Jul **1995 Athletissima (Luasanne, SUI)**
 400mH mF (Diagana) Behm, J.-J. (1999). *Les deux recordmen de france Stéphane Diagana: Grand champions et grand garçon*. Revue de l'AEFA, p57. (in French)
- 3-Jul **1995 Gaz de France (Paris, FRA)**
 400m wF (pérec) Behm, J.-J. (1999). *Les 4 travaux de Marie-Jo*. Revue de l'AEFA, p54. (in French)
- 2-Jul **1995 German National Championships (Bremen, GER)**
 110mH mF (schwarthoff) Graubner, R. (2008) Retrieved from <http://www.fgs.uni-halle.de> (in German)
- 24-Jun **1995 European Cup (Villeneuve d'Ascq, FRA)**
 400m wF (pérec) Behm, J.-J. (1999). *Les 4 travaux de Marie-Jo*. Revue de l'AEFA, p54. (in French)
- 16-Jun **1995 USATF National Championships (Sacramento, CA)**
 100m wF Lyle, B. (1995) *Miscellaneous coaching notes*
 200m wF USATF Women's Sprint Development (1995). *Report from 1995 USATF National Championships*
 400m mF (johnson) ferrari (2009) - *Split 100 metri uomini e donne* (www.noivelocisti.net/forum?func=view&catid=9&id=1813)
- 15-Oct **1994 Asian Games (Hiroshima, JPN)**
 110mH mF (chen) Yuan Y., & Lu J. (1998) *Chen Yanhao analysis of 110m results*. *Chinese Sports Coach*, 3. p. 5 (in Chinese)
- 10-Aug **1994 European Championships (Helsinki, FIN)**
 400mH mF, wF Behm, J.-J. (1995). *La tactique du 400 haies*. Revue de l'AEFA, pp.41-44. (in French)
- 2-Aug **1994 Herculis (Monaco, MON)**
 400m wF (freeman) Vazel, P.-J. (2011). *Speed reserve in the 400m*. www.uka.org.uk/coaching.
- 20-Jul **1994 ??? (Tønsberg, NOR)**
 100m mF ??? Andersson, H.(2007) *Windsprint 2007 Splittider*. Retrieved from www.ssg.se/en/Windsprint/Split-times/ (in Swedish)
- 4-Jul **1994 Italian National Championships (Naples, ITA)**
 100m mF, mSF(1), wF Locatelli, E., & Arzac, L. (2000). *The mechanics and energetics of the 100m sprint*. In *The Sprints & Relays: Contemporary Theory, Technique and Training*. Mountain View, CA: Track and Field News. p23.
- 12-Jun **1994 DLV Leichtathletik Gala (Duisburg, GER)**
 100m mF, mH (blume) Stein, R. (1994). *Für sprinter: Das training vom 1994*. *Leichtathletiktraining*, 5(8), p31. (in German)
 200m mF (johnson) Graubner, R. (2008) Retrieved from <http://www.fgs.uni-halle.de> (in German)
- 6-Mar **1994 Hallensportfest (Sindelfingen, GER)**
 60mH mF (jackson) Vazel (2020) - *coaching observations*
- 10-Oct **1993 ??? (Pesaro, ITA)**
 400mH mF Partipilo, G., & Ditrollo, M. (1994). *La distribuzione dello sforzo nei 400m ad ostacoli*. *Nuova Atletica*, (124), p6. (in Italian)
- 3-Oct **1993 ??? (Bergamo, ITA)**
 400mH mF Partipilo, G., & Ditrollo, M. (1994). *La distribuzione dello sforzo nei 400m ad ostacoli*. *Nuova Atletica*, (124), p8. (in Italian)
- 13-Sep **1993 Chinese National Games (Beijing, CHN)**
 100m wF Feng R., Guo J., Zhang M., & Jin Q. (1992). *Beijing asian games women's 100m, 200m, 400m technical analysis*. *Journal of Xi'an physical education institute*, 19. p. 25. (in Chinese)
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 110mH mF (chen) Yuan Y., & Lu J. (1998) *Chen Yanhao analysis of 110m results*. *Chinese Sports Coach*, 3. p. 5 (in Chinese)
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 wF (zheng) Xu X, (1993). *Training about Zhen Liyuan in 400m hurdles*. *Journal of Xi'an Physical Education Institute*, 10 (4), p29-30. (in Chinese)
- 9-Sep **1993 ??? (Bologna, ITA)**
 400mH mF Partipilo, G., & Ditrollo, M. (1994). *La distribuzione dello sforzo nei 400m ad ostacoli*. *Nuova Atletica*, (124), p6. (in Italian)
- 8-Sep **1993 ??? (Urbino, ITA)**
 400mH mF Partipilo, G., & Ditrollo, M. (1994). *La distribuzione dello sforzo nei 400m ad ostacoli*. *Nuova Atletica*, (124), p8. (in Italian)

- 15-Aug **1993 IAAF World Championships (Stuttgart, GER)**
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 wF(torrence, privalova) Price (1994) - split times for 100m sprint, 1993 IAAF world championship
 mF Stein, R. (1993). Verbesserung der schnelligkeit. Leichtathletiktraining, 4(7), p33. (in German)
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 400m mF(2) Graubner, R. (2008) Retrieved from <http://www.fgs.uni-halle.de> (in German)
 mF(kitur, bada), wF Smith, M. (1994). 400m pace control. Athletics Coach, 28(2), p13-14.
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- 1-Aug **1993 European Junior Championships (San Sebastian, ESP)**
 100mH wF, wH(fust) Hücklekemkes, J. (1997). Geschwindigkeitstabellen vereinfachen die auswertung von hürdensprints. Leichtathletik, 8(1), p30. (in German)
- 11-Jul **1993 German National Championships (Duisburg, GER)**
 100m mF(M.blume), mH(H.blume) Stein, R. (1994). Für sprinter: Das training vom 1994. Leichtathletiktraining, 5(8), p31. (in German)
 mH(konieczny) Busemann, F.-J. (2001). Der deutsche sprint! Oder: warum laufen andere schneller? WLV - Training, 6, p (in German)
- 1-Jul **1993 ??? (Bologna, ITA)**
 400mH mF Partipilo, G., & Ditollo, M. (1994). La distribuzione dello sforzo nei 400m ad ostacoli. Nuova Atletica, (124), p6. (in Italian)
- ??? **1992 ??? (???)**
 400mH wF(leng xueyan) Cui Z. (2008). Research on the rhythm characteristics of outstanding female 400m hurdlers in China. Social Sciences II, p277. (in Chinese)
- 1-Aug **1992 Olympic Games (Barcelona, ESP)**
 100m mF, wF Arnold, M. (1992). 1992 Olympic report: 100m men. Athletics Coach, 26(4), p13.
 200m mSF(marsh) Hymans, R. & Matrahazi, I. (Eds.). (2015) Progression of IAAF world records. Monaco, MON: IAAF. p 47
 wF Butler, M. (2016). IAAF statistics handbook- Special edition: Games of the XXXI Olympiad- Rio 2016. IAAF Communications Department, p231.
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 400m mF(watt) Vazel, P.-J. (2015) Van Niekerk and Merritt were on for the record at 300m. Retrieved from: <http://www.track-stats.com/van-niekerk-and-merritt-were-on-for-the-record-at-300m/>
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 100mH wQF, wH Lyle, B. (1992) Miscellaneous coaching notes
 110mH mF Knight, G. (1992). 1992 Olympic report: the hurdling events. Athletics Coach, 26(4), p22.
 400mH mF(young) Letzelter, H., Honda, Y., & Steinmann, W. (1995). Schrittgestaltung im 400m-hürdenlauf der jugend. Die Lehre der Leichtathletik, (9), p27.
 mF(graham), wF Knight, G. (1992). 1992 Olympic report: the hurdling events. Athletics Coach, 26(4), p29.
 mF(akabusi) Arnold, M. (1992) - Hurdling. Birmingham, ENG: British Athletic Federation. p. 20.
 mF Belloc, O. (1992). Diagona: 45.18 / 48.13 : 3" d'ecart; incompressibles? Revue de l'AEFA, (127), p16. (in French)
 wSF, wH Lyle, B. (1992) Miscellaneous coaching notes
- 28-Jun **1992 French National Championships (Narbonne, FRA)**
 400m mF(Diagona) Belloc, O. (1992). Diagona: 45.18 / 48.13 : 3" d'ecart; incompressibles? Revue de l'AEFA, (127), p15. (in French)
 400mH mF Veney - split times from PJ
- 19-Jul **1992 ??? (Ingolstadt, GER)**
 200m wF(knoll) Graubner, R. (2008) Retrieved from <http://www.fgs.uni-halle.de> (in German)
- 18-Jul **1992 U23 European Cup (Villeneuve d'Ascq, FRA)**
 400mH wF Veney - split times from PJ
- 22-Jun **1992 French National Championships (Narbonne, FRA)**
 400mH wF Veney - split times from PJ
- 31-May **1992 ??? (Corridonia, ITA)**
 400mH mF Partipilo, G., & Ditollo, M. (1994). La distribuzione dello sforzo nei 400m ad ostacoli. Nuova Atletica, (124), p8. (in Italian)
- 4-Apr **1992 Fresno Relays (Fresno, CA)**
 110mH mH(li) Wang Y. (2009) The research of training characteristic during different stages in the development of 110m hurdles. (Dissertation). Beijing Sport University. p. 44. (in Chinese)
- ??? **1991 ??? (???)**

- 400mH wF (leng xueyan) Cui Z. (2008). *Research on the rhythm characteristics of outstanding female 400m hurdlers in China*. *Social Sciences II*, p277. (in Chinese)
- 27-Aug **1991 IAAF World Championships (Tokyo, JPN)**
 100m mF Ae, M., Ito, A., & Suzuki M. (1992). *The men's 100m*. *New Studies in Athletics*, 7(1), p49.
 wF Butler, M. (2013). *IAAF world championships statistics handbook- moscow 2013*. Monaco, MON; IAAF. p85, 202.
- 200m mF, wF Butler, M. (2013). *IAAF world championships statistics handbook- moscow 2013*. Monaco, MON; IAAF. p80, 208.
- 400m mF, wF Butler, M. (2013). *IAAF world championships statistics handbook- moscow 2013*. Monaco, MON; IAAF. p86, 213.
- mF Mochida, H., Sugita, M., Matsuo, A., Hirokawa, R., Yanagiya, T., & Ae, T. (2008). *About the race pattern of the men's 400m in the world's top level*. *Bulletin of Studies in Athletics of JAAF*, 4, p73. (in Japanese)
- 100mH wF, wH Numazawa (1991) - *analysis of time in the 3rd world athletics championships, women's 100m hurdles*
- 110mH
- 400mH mF, wF Behm, J.-J. (1995). *La tactique du 400 haies*. *Revue de l'AEFA*, pp.41-44. (in French)
- 8-Aug **1991 European Junior Championships (Thessaloniki, GRE)**
 100m mF (blume) Stein, R. (1993). *Die beschleunigungsfähigkeit bestimmt die sprintleistung*. *Leichtathletiktraining*, 4(5/6), p36. (in German)
- 11-Jul **1991 USSR National Championships (Kiev, URS)**
 100mH wF Stepanov, V. (2004). *Speed and (or?) technique: Gail Devers and others*. In Javer, J. (Ed) *The Hurdles: Contemporary Theory, Technique and Training*. Mountain View, CA; Track and Field News. p99.
- 5-Aug **1991 KVP-Galan (Malmo, SWE)**
 400m mF (black) Behm, J.-J., & Duvigneau, D. (1995). *Colloque 400m haies*. *Revue de l'AEFA*, (138), p44. (in French)
- 29-Jun **1991 European Cup (Frankfurt, GER)**
 100m mF, wF Federle, R., Heß, W.-D., Bosse, T., Girbig, J., & Graubner, R. (2003) Retrieved from <http://www.fgs.uni-halle.de> (in German)
 200m mF, wF Federle, R., Heß, W.-D., Bosse, T., Girbig, J., & Graubner, R. (2003) Retrieved from <http://www.fgs.uni-halle.de> (in German)
 400m mF, wF Federle, R., Heß, W.-D., Bosse, T., Girbig, J., & Graubner, R. (2003) Retrieved from <http://www.fgs.uni-halle.de> (in German)
 100mH wF Federle, R., Heß, W.-D., Bosse, T., Girbig, J., & Graubner, R. (2003) Retrieved from <http://www.fgs.uni-halle.de> (in German)
 110mH mF Federle, R., Heß, W.-D., Bosse, T., Girbig, J., & Graubner, R. (2003) Retrieved from <http://www.fgs.uni-halle.de> (in German)
 400mH mF, wF Federle, R., Heß, W.-D., Bosse, T., Girbig, J., & Graubner, R. (2003) Retrieved from <http://www.fgs.uni-halle.de> (in German)
- 28-Jul **1991 German National Championships (Hannover, GER)**
 200m wF (krabbe) Graubner, R. (2008) Retrieved from <http://www.fgs.uni-halle.de> (in German)
- 1-Oct **1990 Asian Games (Beijing, CHN)**
 100m wF Feng R., Guo J., Zhang M., & Jin Q. (1992). *Beijing asian games women's 100m, 200m, 400m technical analysis*. *Journal of Xi'an physical education institute*, 19. p. 25. (in Chinese)
 200m wF Feng R., Guo J., Zhang M., & Jin Q. (1992). *Beijing asian games women's 100m, 200m, 400m technical analysis*. *Journal of Xi'an physical education institute*, 19. p. 28. (in Chinese)
 400m wF Feng R., Guo J., Zhang M., & Jin Q. (1992). *Beijing asian games women's 100m, 200m, 400m technical analysis*. *Journal of Xi'an physical education institute*, 19. p. 30. (in Chinese)
 110mH mF (yu) Feng D. (1993) *An analysis of the racing technique in the entire course of the men's 110m hurdles*. *China Sport Science*, 13 (2), p. 75. (in Chinese)
- 29-Aug **1990 European Championships (Split, YUG)**
 400mH mF (akabusi) Arnold, M. (1992) - *Hurdling*. Birmingham, ENG: British Athletic Federation. p. 20.
 mF, wF Behm, J.-J. (1995). *La tactique du 400 haies*. *Revue de l'AEFA*, pp.41-44. (in French)
- 19-Aug **1990 Résisprint International (LaChaux-de-Fonds, SUI)**
 400H wF (cazier) Veney - *split times from PJ*
- 24-Jul **1990 Goodwill Games (Seattle, WA)**
 100m wF Lyle, B. (1990). *Coaching observations - Goodwill games women's 100m splits*
- 24-Jun **1990 Asian Games Test (Beijing, CHN)**
 400mH wF (chen juying) Guo J., & Zhang K. (2007) *Study on relationship between the rhythm and performance of 400m hurdles*. *Journal of Hubei Sports Science*, 26 (3), p. 26. (in Chinese)
 wF (chen dongmei) Fan X., & Song Y. (1992) *Implementing Chen Dongmei's four-year training plan: Regularities of 400m hurdle*. *Journal of Beijing Institute of Physical Education*, 15 (4), p.15. (in Chinese)
- 5-Jun **1990 Eight Nations (Milano, ITA)**
 400H wF (cazier) Veney - *split times from PJ*
- 8-Sep **1989 IAAF World Cup (Barcelona, ESP)**
 100m mF, wF Pascua, M. (1990). *Carreras de velocidad*. In Pascua, M., & Gil, F. *Atletismo (I) carreras y marcha* (in Spanish)
 200m mF, wF Pascua, M. (1990). *Carreras de velocidad*. In Pascua, M., & Gil, F. *Atletismo (I) carreras y marcha* (in Spanish)
 400m wF Pascua, M. (1990). *Carreras de velocidad*. In Pascua, M., & Gil, F. *Atletismo (I) carreras y marcha* (in Spanish)
 100mH wF Gil, F. (1990). *Carreras con vallas*. In Pascua, M., & Gil, F. *Atletismo (I) carreras y marcha* (in Spanish)
 110mH mF Gil, F. (1990). *Carreras con vallas*. In Pascua, M., & Gil, F. *Atletismo (I) carreras y marcha* (in Spanish)
 400mH
- ??? **1989 ??? (???)**
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- 24-Sep **1988 Olympic Games (Seoul, KOR)**

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- mF (smith) Bondachuk, A.P. (2007) - *Transfer of training in sports. Michigan, USA: Ultimate Athlete Concepts. p. 184.*
- wH (zhirova) Levchenko, A. (1990). *Questions and answers about women's sprinting. Soviet Sports Review, 25(4), p*
- 200m mF, mSF, wF, wSF Brüggenmann, G.-P., & Glad, B. (1990). *Scientific research project at the games of the XXXIV Olympiad, Seoul 1988. Monaco, MON; IAAF. p66-77.*
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- 100mH wF, wSF Brüggenmann, G.-P., & Glad, B. (1990). *Scientific research project at the games of the XXXIV Olympiad, Seoul 1988. Monaco, MON; IAAF. p120-131.*
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- mF Bondachuk, A.P. (2007) - *Transfer of training in sports. Michigan, USA: Ultimate Athlete Concepts. p. 183.*
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- 17-Aug 1988 Weltklasse (Zurich, SUI)
- 400m mF (reynolds) Bauersfeld, K.-H. (1992). *Grundlagen der leichtathletik: das standerwerk für ausbildung und praxis. Berlin; Sportverlag. p112. (in German)*
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- 17-Jul 1988 USA Olympic Trials (Indianapolis, IN)
- 100m wF & wQF (flo-jo) Veney - *Split times from PJ*
- 200m mF Hymans, R. (2008) *the history of the US olympic trials - track and field. Indianapolis, IN: USA Track & Field. p. 210-211.*
- wF Veney - *200m women from PJ*
- 400m mF, wF Hymans, R. (2008) *the history of the US olympic trials - track and field. Indianapolis, IN: USA Track & Field. p. 211, 221-222.*
- mSF Quercentani, R.L. (2000). *Athletics: A history of modern track and field athletics (1860-2000) Men and Women. Rome, ITA: SEP. p. 285*
- 14-Aug 1988 French National Championships (Tours, FRA)
- 400m wF (pérec) Vazel, P.-J. (2011). *Speed reserve in the 400m. www.uka.org.uk/coaching.*
- 10-Jul 1988 Nikaia (Nice, FRA)
- 400m mF Veney - *split times from PJ*
- 28-Nov 1987 Chinese National Games (Guangzhou, CHN)
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400mH mF (vimbart) Behm, J.-J. (1988). 45-39, *Revue de l'AEFA*. (107). P19. (in French)
- 9-Aug **1987 European Junior Championships (Birmingham, GBR)**
400mH mF (lager) Veney - split times from PJ
- 9-Aug **1987 French National Championships (Annecy, FRA)**
400mH mF, wF Veney - split times from PJ
- 8-Aug **1987 Greece vs. Bulgaria vs. USSR (Drama, GRE)**
100mH wF (zagorcheva) Bondachuk, A.P. (2007) - *Transfer of training in sports. Michigan, USA: Ultimate Athlete Concepts*. p. 182.
- 16-Jul **1987 Meeting BNP D'Athletisme (Paris, FRA)**
400mH mF Behm, J.-J. (1988). 45-39, *Revue de l'AEFA*. (107). P19. (in French)
- 11-Jul **1987 West German National Championships (Gelsenkirchen, FRG)**
100mH wF (zackiewicz) Hucklekemkes, J. (1997). *Velocity in the women's 100m sprint hurdles. In Jarver, J. (ed) The hurdles: Contemporary theory, technique and training (p75)*. Los Altos, CA: Track and Field News.
- 28-Jun **1987 European Cup (Prague, TCH)**
100m wF Sušanka, P. (1987). *Hints on computer processing of biomechanical data*. p572-578.
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- 26-Jun **1987 TAC National Championships (San Jose, CA)**
400mH wF Mann, R. (1987) *The elite athlete program biomechanical analysis of the long hurdles: TAC championship meet*
- 13-Jun **1987 Meeting International de Dijon (Dijon, FRA)**
400mH wF Veney - split times from PJ
- 21-Jun **1987 GDR vs. USSR (Karl-Marx-Stadt, GDR)**
100mH wF (riefstahl) Breiser, V., & Korchemny, R. (1990). *The road to success: Skill analysis of leading women hurdlers. Athletics Science Bulletin*, 2(7), p
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100m wF (nuneva), wH (zhirova) Levchenko, A. (1990). *Questions and answers about women's sprinting. Soviet Sports Review*, 25(4), p
- 17-Sep **1986 IX USSR Spartakiade (Tashkent, URS)**
400mH wF Stepanova, N. (1997). *My experiences in the 400m hurdles. In Jarver, J. (ed) The hurdles: Contemporary theory, technique and training (p117)*. Los Altos, CA: Track and Field News.
- 7-Sep **1986 Balkan Games (Ljubljana, YUG)**
100mH wF (donkova) Bondachuk, A.P. (2007) - *Transfer of training in sports. Michigan, USA: Ultimate Athlete Concepts*. p. 182.
- 9-Jul **1986 Goodwill Games (Moscow, URS)**
100m mF Levchenko, A. (1989). *100 meters in 9.83: the birth of a record. Soviet Sports Review*, 24(4), p
wF (nuneva) Levchenko, A. (1990). *Questions and answers about women's sprinting. Soviet Sports Review*, 25(4), p
- 28-Aug **1986 European Championships (Stuttgart, FRG)**
200m mSF Veney - split times from PJ
wF Veney - 200m women from PJ
400m wF Bondachuk, A.P. (2007) - *Transfer of training in sports. Michigan, USA: Ultimate Athlete Concepts*. p. 185.
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400mH mF, wF Behm, J.-J. (1995). *La tactique du 400 haies. Revue de l'AEFA*, pp.41-44. (in French)
wF Breiser, V., & Korchemny, R. (1990). *Tendencies in the development of women for 400m races with hurdles. Athletics Science Bulletin*, 2(8), p
- 16-Aug **1986 Golden Oval (Dresden, GDR)**
100m wF (dreschler) Tepper, E. (1989). *Zum entwicklungsstand und zum trainingssysteme des ddr-frauenkurzsprints. Leichtathletik*, 40(21), p658. (in German)
400m wF (muller) Bondarchuk, A. (2007) *Transfer of training in sports. Michigan: Ultimate Athlete Concepts*. p. 31.
- 13-Aug **1986 Bulgarian National Championships (Sofia, BUL)**
400m wF (pavlova) Bondarchuk, A. (2007) *Transfer of training in sports. Michigan: Ultimate Athlete Concepts*. p. 31.
- 10-Aug **1986 French National Championships (Aix les Bains, FRA)**
400mH mF, wF Veney - split times from PJ
- 26-Jul **1986 West German National Junior Championships (Krefeld, FRG)**
100mH wF (wolf) Hucklekemkes, J. (1997). *Velocity in the women's 100m sprint hurdles. In Jarver, J. (ed) The hurdles: Contemporary theory, technique and training (p75)*. Los Altos, CA: Track and Field News.
- 17-Jul **1986 IAAF World Junor Championships (Athens, GRE)**
100m mF, wF Moravec, P., & Susanka, P. (1986). *Sprints. In Susanka, P., Brüggemann, P., & Tsarouchas, E. (Eds) IAAF biomechanical research - 1st World Junior Championships, Athens 1986*. pA15.
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- 27-Jun **1986 East German National Championships (Jena, GDR)**
100mH wF Aubert, R. (1987). *Mesures et observations biomecaniques a propos des courses de haies hautes. Revue de l'AEFA*, (100), p15. (in French)

- 110mH mF Aubert, R. (1987). *Mesures et observations biomecaniques a propos des courses de haies hautes*. Revue de l'AEFA, (100), p15. (in French)
- 26-Jan **1986 French National Indoor Championship (Lievin, FRA)**
60mH mF, mSF, mH, wF, wSF, wH Aubert, F. (1986). *Indoor-Video-Haies Etude des performances, 60 m haies féminines et masculines, Championnat de France Indoor, Liévin 1986*. Revue de l'AEFA, (96), p42-43, 45-46. (in French)
- 4-Oct **1985 IAAF World Cup (Canberra, AUS)**
200m wF Veney - 200m women from PJ
400m mF (clark) Butler, M. (2010). *1st/IAAF VTB bank continental cup, IAAF statistics handbook - split 2010*. Monaco, MON: IAAF. p27.
wF (koch) Saunders, R. (2015). *400m performance- time as percentages splits*. *Modern Athlete and Coach*, 53(4), p17
wF (quirot) Vazel, P.-J. (2011). *Speed reserve in the 400m*. www.uka.org.uk/coaching.
- 23-Aug **1985 European Junior Championships (Cottbus, GDR)**
100mH wF, wSF, wH Warburton, D. (1985). *1985 european junior championships - hurdles*. *Athletics Coach*, 19(4), p17
110mH mF, mSF, mH Warburton, D. (1985). *1985 european junior championships - hurdles*. *Athletics Coach*, 19(4), p16
400mH mF, wF Warburton, D. (1985). *1985 european junior championships - hurdles*. *Athletics Coach*, 19(4), p19
- 21-Jun **1985 Great Britian vs. USA (Birmingham, GBR)**
400mH mF (robinson) Warden (1989) - *sprinting and hurdling*
- 13-Jul **1985 ??? (Paris, FRA)**
100mH wF (elloy) Aubert, R. (1987). *Mesures et observations biomecaniques a propos des courses de haies hautes*. Revue de l'AEFA, (100), p14. (in French)
- 19-Jun **1985 ??? (Marseille, FRA)**
100mH wF (elloy) Aubert, R. (1987). *Mesures et observations biomecaniques a propos des courses de haies hautes*. Revue de l'AEFA, (100), p14. (in French)
- 17-Jun **1985 Internationales Sportfest (Fürth, FRG)**
100mH wF, wH (elloy) Aubert, R. (1987). *Mesures et observations biomecaniques a propos des courses de haies hautes*. Revue de l'AEFA, (100), p14. (in French)
- 12-Jun **1985 ??? (Joinville, FRA)**
100mH wF Aubert, R. (1987). *Mesures et observations biomecaniques a propos des courses de haies hautes*. Revue de l'AEFA, (100), p14. (in French)
- 16-Aug **1984 Women's Friendship Games (Praha, TCH)**
400m wF Bondarchuk, A. (2007) *Transfer of training in sports*. Michigan: *Ultimate Athlete Concepts*. p. 185.
400mH wF Stepanova, N. (1997). *My experiences in the 400m hurdles*. In Jarver, J. (ed) *The hurdles: Contemporary theory, technique and training* (p117). Los Altos, CA: *Track and Field News*.
- 8-Aug **1984 Olympic Games (Los Angeles, CA)**
200m mF, wF Vogel, H. (1984). *Olympische spiele in los angeles*. *Leichtathletik*, 35(32/33), p1190. (in German)
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400m mF, mH, wF, wSF Adams, G. (1984). *1984 Olympic Games - Sprints and hurdles - 200m & 400m*. *Athletics Coach*, 18(4), p23, 25.
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- 26-Jul **1984 East German Spitzenklasse (Dresden, GDR)**
400m wF (koch) Heß, W.-D., Müller, H., & Tepper, E. (1985). *Entwicklungsaspekte der leichtathletischen sprint-/hürdendisziplinen im olympiazzyklus 1981/84*. *Theorie und Praxiz Leistungssport*, 23(8), (in German)
- 21-Jul **1984 Olympischen Tag (Potsdam, GDR)**
100m wF (auerswald) Heß, W.-D., Müller, H., & Tepper, E. (1985). *Entwicklungsaspekte der leichtathletischen sprint-/hürdendisziplinen im olympiazzyklus 1981/84*. *Theorie und Praxiz Leistungssport*, 23(8), (in German)
200m mF (emmelman), wF (koch, wöckel) Heß, W.-D., Müller, H., & Tepper, E. (1985). *Entwicklungsaspekte der leichtathletischen sprint-/hürdendisziplinen im olympiazzyklus 1981/84*. *Theorie und Praxiz Leistungssport*, 23(8), (in German)
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- 15-Jul **1984 East German Athletics Sportfest (East Berlin, GDR)**
400m mF (schonlebe) Heß, W.-D., Müller, H., & Tepper, E. (1985). *Entwicklungsaspekte der leichtathletischen sprint-/hürdendisziplinen im olympiazzyklus 1981/84*. *Theorie und Praxiz Leistungssport*, 23(8), (in German)
- 22-Jun **1984 USSR National Championships (Kiev, URS)**
100mH wF Breiser, V., & Papanov, V. (1985). *Over the hurdles with Vera Akimova and Nadezdha Korshunova*. *Soviet Sports Review*, 20(4), p181.
- 21-Jun **1984 USA Olympic Trials (Los Angeles, CA)**
200m mF Hymans, R. (2008) *the history of the US olympic trials - track and field*. Indianapolis, IN: *USA Track & Field*. p. 193.
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- 3-Jun **1984 East German National Championships (Erfurt, GDR)**
200m wF (göhr) Heß, W.-D., Müller, H., & Tepper, E. (1985). *Entwicklungsaspekte der leichtathletischen sprint-/hürdendisziplinen im olympiazzyklus 1981/84*. *Theorie und Praxiz Leistungssport*, 23(8), (in German)

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- 19-May **1984 ??? (Dresden, GDR)**
400mH wF (uibel) Heß, W.-D., Müller, H., & Tepper, E. (1985). *Entwicklungsaspekte der leichtathletischen sprint-/hürdendisziplinen im olympiazyklus 1981/84. Theorie und Praxiz Leistungssport*, 23(8), (in German)
- 31-Aug **1983 Internationales Leichtathletiksportfest (Koblenz, FRG)**
400mH mF (moses) Arnold, M. (1992) - *Hurdling*. Birmingham, ENG: British Athletic Federation. p. 20
- 20-Aug **1983 European Cup (London, GBR)**
400mH wF Ewen, A. (1985). *Hurdles*. In Payne, H. (Ed) *Athletes in action: The official International Amateur Athletic Federation book on track and field techniques*. London; Pelham. p100.
- 14-Aug **1983 IAAF World Championships (Helsinki, FIN)**
100m mF, wF Moravec, P., & Susanka, P. (1986). *Sprints*. In Susanka, P., Brüggemann, P., & Tsarouchas, E. (Eds) *IAAF biomechanical research - 1st World Junior Championships, Athens 1986*. pA13.
wF (30m) Butler, M. (2019). *IAAF world championships statistics handbook- Doha 2019*. Monaco, MON; IAAF. p247.
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wF (kratochvilová) Veney - *split times from PJ*
100mH wF, wSF, wQF Knoke, G. (1984). *The hurdles*. *Athletics Coach*, 22(2), p8-9.
110mH mF, mSF, mH Knoke, G. (1984). *The hurdles*. *Athletics Coach*, 22(2), p9.
400mH mF, wF McFarlane, B. (1988) - *The science of hurdling*. Ottawa, ONT: The Canadian Track and Field Association. p. 25, 27.
mSF, wSF Lyle, B. (1983) *Miscellaneous coaching notes*
wSF, wH Knoke, G. (1984). *The hurdles*. *Athletics Coach*, 22(2), p9.
- 21-Jun **1983 VIII USSR Spartakiad (Moscow, URS)**
400mH wF (fesenko) Breizer, V. (1985). *On the track with Ekaterina Fesenko*. *Soviet Sports Review*, 20(2), p77.
- 8-Jun **1983 Olympischen Tag (East Berlin, GDR)**
100m mF (schröder), wF Bauersfeld, K.-H. (1992). *Grundlagen der leichtathletik: das standerwerk für ausbildung und praxis*. Berlin; Sportverlag. p112. (in German)
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wF (gladisch) Heß, W.-D., Müller, H., & Tepper, E. (1985). *Entwicklungsaspekte der leichtathletischen sprint-/hürdendisziplinen im olympiazyklus 1981/84. Theorie und Praxiz Leistungssport*, 23(8), (in German)
100mH wF (jahn) Graubner, R. (2008) Retrieved from <http://www.fgs.uni-halle.de> (in German)
- 21-Aug **1982 East German Spitzenklasse (Cottbus, GDR)**
100m mF (emmelmann) Heß, W.-D., Müller, H., & Tepper, E. (1985). *Entwicklungsaspekte der leichtathletischen sprint-/hürdendisziplinen im olympiazyklus 1981/84. Theorie und Praxiz Leistungssport*, 23(8), (in German)
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- 9-Jul **1982 GDR vs. USA (Karl-Marx-Stadt, GDR)**
100m mF Heß, W.-D., Müller, H., & Tepper, E. (1985). *Entwicklungsaspekte der leichtathletischen sprint-/hürdendisziplinen im olympiazyklus 1981/84. Theorie und Praxiz Leistungssport*, 23(8), (in German)
- 1-Jul **1982 East German National Championships (Dresden, GDR)**
100m wF (wöckel) Heß, W.-D., Müller, H., & Tepper, E. (1985). *Entwicklungsaspekte der leichtathletischen sprint-/hürdendisziplinen im olympiazyklus 1981/84. Theorie und Praxiz Leistungssport*, 23(8), (in German)
- 9-Sep **1982 European Championships (Athens, GRE)**
200m mF (prenzler), wF Heß, W.-D., Müller, H., & Tepper, E. (1985). *Entwicklungsaspekte der leichtathletischen sprint-/hürdendisziplinen im olympiazyklus 1981/84. Theorie und Praxiz Leistungssport*, 23(8), (in German)
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- 400m mF Hymans, R. (2008) the history of the US olympic trials - track and field. Indianapolis, IN: USA Track & Field. p. 153.
- 400mH mF (1972). Die große olympia-vorschau. Von wettbewerb zu wettbewerb. - Hemery in besserer ausgangsposition als 1968. Leichtathletik, 24(34-35), p1231. (in German)
- 4-Jul **1972 FRA vs. GDR (Colombes, FRA)**
- 400m wF (zehrt) Hymans, R. & Matrahazi, I. (Eds.). (2015) Progression of IAAF world records. Monaco, MON: IAAF. p 261
- 3-Jun **1972 NCAA Championships (Eugene, OR)**
- 400m mF (smith) Robinson, C.F., Jensen, C.R., James, S.W., Hirschi, W.M. (1974). Modern techniques of track and field. Philadelphia, PA: Lea & Febiger. p66.
- 15-Apr **1972 UCLA Meet of Champions (Westwood, CA)**
- 400m mF (collett) Robinson, C.F., Jensen, C.R., James, S.W., Hirschi, W.M. (1974). Modern techniques of track and field. Philadelphia, PA: Lea & Febiger. p66.
- 13-Aug **1971 European Championships (Helsinki, FIN)**
- 200m mF (borzov) (1971). Walerij Borsow - ein souveräner Europameister. Der Leichtathlet, (in German)
- 400m mF (jenkins) (1971). Walerij Borsow - ein souveräner Europameister. Der Leichtathlet, (in German)
- mF (flasconaro) Quercentani, R.L. (2000). Athletics: A history of modern track and field athletics (1860-2000) Men and Women. Rome, ITA: SEP. p. 207
- 400mH mF Behm, J.-J. (1995). La tactique du 400 haies. Revue de l'AEFA, pp.41-44. (in French)
- 26-Jun **1971 USA National Championships (Eugene, OR) (yards)**
- 400m mF Hymans, R. & Matrahazi, I. (Eds.). (2015) Progression of IAAF world records. Monaco, MON: IAAF. p 52
- 17-May **1971 West German Athletics - 400m Hurdles Test (Bonn, FRG)**
- 300mH wF Keydel, H. (1971). Die 400m hürden machten das rennen. Leichtathletik, 22(21), p747. (in German)
- 400mH wF Keydel, H. (1971). Die 400m hürden machten das rennen. Leichtathletik, 22(21), p747. (in German)
- 18-Jul **1970 Commonwealth Games (Edinburgh, GBR)**
- 400m wF (neufville) Hymans, R. & Matrahazi, I. (Eds.). (2015) Progression of IAAF world records. Monaco, MON: IAAF. p 261
- 110mH mF (hemery) Le Masurier, J. (1972). Track speed: Hurdles, sprints, and relays. London: Stanley Paul. p???
- 8-Jul **1970 France vs. USA (Colombes, FRA)**
- 400mH mF (nallet) Behm, J.-J. (1988). 45-39, Revue de l'AEFA. (107). P19. (in French)
- 19-Jul **1970 French National Championships (Colombes, FRA)**
- 400m mF (nallet) Robinson, C.F., Jensen, C.R., James, S.W., Hirschi, W.M. (1974). Modern techniques of track and field. Philadelphia, PA: Lea & Febiger. p66.
- 18-Sep **1969 European Championships (Athens, GRE)**
- 200m wH (samotysova) (1964). Einschätzung der einzelnen leichtathletischen disziplinen. Theorie und Praxis Leistungssport, p131. (in German)
- 21-Jun **1969 NCAA Championships (Knoxville, TN)**
- 400m mF (mills) Hymans, R. & Matrahazi, I. (Eds.). (2015) Progression of IAAF world records. Monaco, MON: IAAF. p 52
- 14-Oct **1968 Olympic Games (Mexico City, MEX)**
- 100m mF (hines) Tepper, E. (1978). Analyse der trainingsgestaltung und leistungsentwicklung in den sprintdisziplinen der männer und frauen des DVfL der DDR in olympiazzyklus 1973/76. Theorie und Praxis Leistungssport, 16(1), (in German)
- 200m mF (smith) Брејзер (1984) - соревнoбательная деятельность спринтерoб (in Russian). ?????
- mF Hymans, R., & Matrahazi, I. (2015). Progression of IAAF world records: 2015 Edition. Monaco, MON: Multiprint. p44.
- 400m mF (Evans) Track & Field News (1979) - olympic track & field: complete results
- mF Butler, M. (2016). IAAF statistics handbook- Special edition: Games of the XXXI Olympiad- Rio 2016. IAAF Communications Department, p83.
- 400mH mF Dessons (1982) Traite d'athletisme - volume 1: les courses. Paris: Editions Vigot. p. 303 (in French)
- mF McFarlane, B. (1981). Understanding the 400m hurdles. In Jarver, J. (ed) The hurdles: Contemporary theory, technique and training (p98). Los Altos, CA: Track and Field News
- mF Le Masurier, J. (1972). Track speed: Hurdles, sprints, and relays. London: Stanley Paul. p???
- mSF, mH Jonath, U. (1969). Wie gerhard hennige trainiert. Die Lehre der Leichtathletik, 20(9), p302. (in German)
- 12-Sep **1968 USA Olympic Trials (Echo Summit, CA) (Altitude)**

- 200m mF (carlos) Breizer, V. (1984) *Sprint competition analysis. Legkaya Atletika*. Retrieved from http://www.cnopm.ru/athletics/training/1984/november/competitive_activity_sprinters (in Russian)
- 400m mF Hymans, R. (2008) *the history of the US olympic trials - track and field*. Indianapolis, IN: USA Track & Field. p. 139.
- 31-Aug **1968 Pre-Olympic Test (Echo Summit, CA) (Altitude)**
400m mF (matthews) Hymans, R. & Matrahazi, I. (Eds.). (2015) *Progression of IAAF world records*. Monaco, MON: IAAF. p 51
- 25-Aug **1968 USA Olympic Trials (Walnut, CA)**
400m wF Hymans, R. (2008) *the history of the US olympic trials - track and field*. Indianapolis, IN: USA Track & Field. p. 149.
- 2-Oct **1967 ??? (Leninakan, URS) (Altitude)**
400mH mF (skomorokhov) Jonath, U. (1969). *Wie gerhard hennige trainiert. Die Lehre der Leichtathletik*, 20(9), p302. (in German)
- 20-May **1967 San Jose State Invitational (San Jose, CA)**
400m mF Drake, D. (1967). *Der schnellste sprint der geschichte, Leichtathletik*, 18(22), 550 (in German)
- 19-Sep **1964 Olympic Games (Tokyo, JPN)**
400m mF (larrabee) Sultanov, N. (1982). *Probleme der vorbereitung für den 400m-lauf. Leichtathletik Magazin*, 2(6), p26. (in German)
- mF Butler, M. (2016). *IAAF statistics handbook- Special edition: Games of the XXXI Olympiad- Rio 2016*. IAAF Communications Department, p83.
- 80mH wF, wSF Breitschaft, J. (1965). *Die leichtathletik wettkämpfe der XVIII Olympischen Sommerspiele 1964 in Tokio - 80m hürdenlauf. Theorie und Praxis Leistungssport*, 3(7/8), p126. (in German)
- 400mH mF Breitschaft, J. (1965). *Die leichtathletik wettkämpfe der XVIII Olympischen Sommerspiele 1964 in Tokio - 400m hürdenlauf. Theorie und Praxis Leistungssport*, 3(7/8), p112. (in German)
- 12-Sep **1964 USA Olympic Trials (Los Angeles, CA)**
400m mF (larrabee) ????
- 13-Oct **1963 International Sportweek (Tokyo, JPN)**
200m wH (popkova) (1964) *Einschätzung der einzelnen leichtathletischen disziplinen. Theorie und Praxis Leistungssport*. p. 130 (in German)
- 25-May **1963 Western Athletic Conference Championships (Tempe, AZ)**
400m mF (plummer) Drake, D. (1967). *Der schnellste sprint der geschichte, Leichtathletik*, 18(22), 550 (in German)
- 12-Sep **1962 European Championships (Belgrad, YUG)**
400mH mF (morale) Nett, T. (1964) - *Training des leichtathleten: Hürdenlauf, sprung, wurf, mehrkampf*. Berlin, FRG: Verlag Bartels & Wernitz KG. p139 (in German)
- 15-Oct **1961 International Fall Meeting (Rome, ITA)**
400mH mF (morale) Nett, T. (1964) - *Training des leichtathleten: Hürdenlauf, sprung, wurf, mehrkampf*. Berlin, FRG: Verlag Bartels & Wernitz KG. p139 (in German)
- 1-Sep **1961 Universiade (Sofia, BUL)**
400mH mF (morale) Nett, T. (1964) - *Training des leichtathleten: Hürdenlauf, sprung, wurf, mehrkampf*. Berlin, FRG: Verlag Bartels & Wernitz KG. p139 (in German)
- mF (chevychalov) Bartusek, B. (1969). *400-meter training and technique. Track Technique*, (38), 1213.
- 2-Sep **1960 Olympic Games (Rome, ITA)**
400m mF Khomenkov, L.S. (Ed.) (1982) *A textbook for a track and field coach. Physical Education and Sports Publishers*. p. 144. (in Russian)
- mF (kinder, young) Martini, M. (2010). *Ricordi romani (1) - analisi della distribuzione dello sforzo di Otis Davis, che mezzo secolo fa vinse la medaglia d'oro ai giochi Olimpici di Roma net 400 metri paini con il nuovo primato del mondo di 44.9. Athleticastudi*, (3), p64. (in Italian)
- mSF (davis) Quercentani, R.L. (2000). *Athletics: A history of modern track and field athletics (1860-2000) Men and Women*. Rome, ITA: SEP. p. 142
- 400mH mF (davis) Nett, T. (1964) - *Training des leichtathleten: Hürdenlauf, sprung, wurf, mehrkampf*. Berlin, FRG: Verlag Bartels & Wernitz KG. p139 (in German)
- mF, mSF Ulrich, J. (1960) *Der 400m-hürdenlauf in Rom (200m times)*. *Die Lehre der Leichtathletik*. 41, p. 1032 (in German)
- 24-Jul **1960 ??? (Berlin, FRG)**
400m mF (kaufman) Quercentani, R.L. (2000). *Athletics: A history of modern track and field athletics (1860-2000) Men and Women*. Rome, ITA: SEP. p. 141
- 19-Sep **1959 ??? (Köln, FRG) (500m track)**
400m mF (kaufman) Quercentani, R.L. (2000). *Athletics: A history of modern track and field athletics (1860-2000) Men and Women*. Rome, ITA: SEP. p. 141
- 18-Apr **1959 San Jose University Meeting (San Jose, CA)**
100m mF (norton) Hymans, R., & Matrahazi, I. (2015). *Progression of IAAF world records: 2015 Edition*. Monaco, MON: Multiprint. p28.
- 21-Aug **1958 European Championships (Stockholm, SWE)**
400m mF (1959). *Der 400-m-hürdenlauf in stockholm. Leichtathletik*, 59(10), 229-230. (in German)
- 14-Jun **1958 NCAA Championships (Berkeley, CA) (yards)**
400m mF (davis) *Track & Field News* (1963)
- 24-May **1958 Big 10 Championships (Lafayette, LA) (yards)**
400m mF (davis) Hymans, R. & Matrahazi, I. (Eds.). (2015) *Progression of IAAF world records*. Monaco, MON: IAAF. p 51
- 29-Nov **1956 Olympic Games (Melbourne, AUS)**
400m mF Butler, M. (2016). *IAAF statistics handbook- Special edition: Games of the XXXI Olympiad- Rio 2016*. IAAF Communications Department, p83.
- 400mH mF (davis, southern) Quercentani, R.L. (2000). *Athletics: A history of modern track and field athletics (1860-2000) Men and Women*. Rome, ITA: SEP. p. 168
- 30-Jun **1956 USA Olympic Trials (Los Angeles, CA)**

400m mF Hymans, R. (2008) *the history of the US olympic trials - track and field*. Indianapolis, IN: USA Track & Field. p. 107.

- 26-May **1956 California Relays (Modesto, CA)**
400m mF (lea) Quercentani, R.L. (2000). *Athletics: A history of modern track and field athletics (1860-2000) Men and Women*. Rome, ITA: SEP. p. 140
- 25-Jun **1955 Znamenskiy Memorial (Moscow, URS)**
400m mF (ignatyev) Quercentani, R.L. (2000). *Athletics: A history of modern track and field athletics (1860-2000) Men and Women*. Rome, ITA: SEP. p. 139
- 18-Mar **1955 Pan American Games (Mexico City, MEX)**
400m mF (jones) Drake, D. (1967). *Der schnellste sprint der geschichte, Leichtathletik*, 18(22), 550 (in German)
- 20-Sep **1953 Hungary vs. USSR (Budapest, HUN)**
400mH mF (lituyev) Quercentani, R.L. (2000). *Athletics: A history of modern track and field athletics (1860-2000) Men and Women*. Rome, ITA: SEP. p. 166
- 21-Jul **1952 Olympic Games (Helsinki, FIN)**
400m mF Quercentani, R.L. (2000). *Athletics: A history of modern track and field athletics (1860-2000) Men and Women*. Rome, ITA: SEP. p. 139
400mH mF (moore) Mitchell, L. (1967) *Future of the one-lap hurdles*. Track Technique p. 892.
- 22-Aug **1950 International Athletics Meeting (Eskilstuna, SWE)**
400m mF (rhoden) Drake, D. (1967). *Der schnellste sprint der geschichte, Leichtathletik*, 18(22), 550 (in German)
- 5-Aug **1948 Olympic Games (London, GBR)**
400m mF Parienté, R. (1978). 400 mètres: Carrefour des vertus. In Parienté, R., *la fabuleuse histoire de l'athlétisme* (p. 127). Paris: Edité par Editions O.D.I.L.E (in Spanish)
- 2-Jul **1948 AAU Championships (Milwaukee, WI)**
400m mH (mckenley) Drake, D. (1967). *Der schnellste sprint der geschichte, Leichtathletik*, 18(22), 550 (in German)
- 6-Jun **1948 Pacific Association Championships (Berkeley, CA)**
400m mF (mckenley) Track & Field News (1963)
- 23-Aug **1947 ??? (Long Branch, NJ) (440y straightaway)**
400m mF (mckenley) Parienté, R. (1978). 400 mètres: Carrefour des vertus. In Parienté, R., *la fabuleuse histoire de l'athlétisme* (p. 127). Paris: Edité par Editions O.D.I.L.E (in Spanish)
- 28-Jun **1947 PCC vs Big 10 (Berkeley, CA) (yards)**
400m mF (mckenley) Hymans, R. & Matrahazi, I. (Eds.). (2015). *Progression of IAAF world records*. Monaco, MON: IAAF. p 50
- 21-Jun **1947 NCAA Championships (Salt Lake City, UT) (Altitude)**
400m mF (mckenley) Hymans, R. & Matrahazi, I. (Eds.). (2015). *Progression of IAAF world records*. Monaco, MON: IAAF. p 50
- 1-Jun **1946 Big 10 Championships (Champaign, IL)**
400m mF (mckenley) Hymans, R. & Matrahazi, I. (Eds.). (2015). *Progression of IAAF world records*. Monaco, MON: IAAF. p 50
- 20-Jun **1943 ??? (New York, NY) (220y Straightaway)**
200m mf (davis) Quercentani, R.L. (2000). *Athletics: A history of modern track and field athletics (1860-2000) Men and Women*. Rome, ITA: SEP. p. 127
- 29-Jun **1941 AAU Championship (Philadelphia, PA)**
400m mF (klemmer) Hymans, R. & Matrahazi, I. (Eds.). (2015.) *Progression of IAAF world records*. Monaco, MON: IAAF. p 50
- 6-Jun **1941 Compton Invitational (Compton, CA)**
100m mf (davis) Quercentani, R.L. (2000). *Athletics: A history of modern track and field athletics (1860-2000) Men and Women*. Rome, ITA: SEP. p. 127
- 31-May **1941 Pacific Coast Conference Championship (Berkeley, CA)**
400m mF (klemmer) Hymans, R. & Matrahazi, I. (Eds.). (2015). *Progression of IAAF world records*. Monaco, MON: IAAF. p 50
- 17-May **1941 ??? (Fresno, CA) (220y Straightaway)**
200m mf (davis) Quercentani, R.L. (2000). *Athletics: A history of modern track and field athletics (1860-2000) Men and Women*. Rome, ITA: SEP. p. 127
- 12-Aug **1939 Internationale Leichtathletik Wettkampf (Frankfurt-am-Main, GER) (500m track)**
400m mF Quercentani, R.L. (2005) *A world history of the one-lap race: The killer sprint, 400m and 4x 400m relay, men and women, 1850-2004*. Rome, ITA: SEP. p. 52.
- 16-Jul **1939 Italy vs. Germany (Milan, ITA) (500m track)**
400m mF Quercentani, R.L. (2000). *Athletics: A history of modern track and field athletics (1860-2000) Men and Women*. Rome, ITA: SEP. p. 82
- 7-Aug **1936 Olympic Games (Berlin, GER)**
400m mF Butler, M. (2016). *IAAF statistics handbook- special edition: Games of the XXXI Olympiad- Rio 2016*. Monaco, MON, IAAF Communications Department. p82.
- 19-Jun **1936 NCAA Championships (Chicago, IL)**
400m mH (williams) Quercentani, R.L. (2005) *A world history of the one-lap race: The killer sprint, 400m and 4x 400m relay, men and women, 1850-2004*. Rome, ITA: SEP. p. 45.
- 5-Aug **1932 Olympic Games (Los Angeles, CA)**
400m mF Quercentani, R.L. (2005) *A world history of the one-lap race: The killer sprint, 400m and 4x 400m relay, men and women, 1850-2004*. Rome, ITA: SEP. p. 43.
- 16-Jul **1932 USA Olympic Trials (Palo Alto, CA)**
400m mF (eastman) Hymans, R. (2008) *the history of the US olympic trials - track and field*. Indianapolis, IN: USA Track & Field. p. 71-72.
- 26-Mar **1932 Los Angeles AC vs. Stanford University (Stanford, CA) (yards)**
400m mF (eastman) Hymans, R. & Matrahazi, I. (Eds.). (2015) *Progression of IAAF world records*. Monaco, MON: IAAF. p 50
- 12-May **1928 Pacific AAU Championships (Palo Alto, CA)**
400m mF (spencer) Parienté, R. (1978). 400 mètres: Carrefour des vertus. In Parienté, R., *la fabuleuse histoire de l'athlétisme* (p. 120). Paris: Edité par Editions O.D.I.L.E (in Spanish)
- 11-Jul **1924 Olympic Games (Paris, FRA)**
400m mF (liddell) Parienté, R. (1978). 400 mètres: Carrefour des vertus. In Parienté, R., *la fabuleuse histoire de l'athlétisme* (p. 120). Paris: Edité par Editions O.D.I.L.E (in Spanish)

- 10-Apr **1900 Exhibition Handicap (Guttenberg, NY) (440y Straightaway)**
400m mF (long) *Hymans, R. & Matrahazi, I. (Eds.). (2015) Progression of IAAF world records. Monaco, MON: IAAF. p 48*
- 9-Jul **1890 ??? Beacon Park (Boston, MA) (440y Straightaway)**
400m mF (downs) *Quercentani, R.L. (2000). Athletics: A history of modern track and field athletics (1860-2000) Men and Women. Rome, ITA: SEP. p. 24.*
- 1-Jul **1886 ??? Beacon Park (Boston, MA) (440y Straightaway)**
400m mF (baker) *Quercentani, R.L. (2000). Athletics: A history of modern track and field athletics (1860-2000) Men and Women. Rome, ITA: SEP. p. 24.*
- 22-Oct **1881 Time Trial in Solo Effort (New York, NY) (640y Circuit)**
400m mF (myers) *Hymans, R. & Matrahazi, I. (Eds.). (2015) Progression of IAAF world records. Monaco, MON: IAAF. p 48*

