PUBLICATION LIST

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* = Author list alphabeticized
Major author

1. **S. More, Sugiyama, Sunao, H. Miyatake, et al. Hyper Suprime-Cam Year 3 results: Measurements of clustering of SDSS-BOSS galaxies, galaxy-galaxy lensing, and cosmic shear.** Phys. Rev. D, **108(12):123520, December 2023:123520.** doi: 10.1103/PhysRevD.108.123520

2. **R. Dalal, X. Li, A. Nicola, et al. Hyper Suprime-Cam Year 3 results: Cosmology from cosmic shear power spectra.** Phys. Rev. D, **108(12):123519, December 2023:123519.** doi: 10.1103/PhysRevD.108.123519

3. **X. Li, T. Zhang, Sugiyama, Sunao, et al. Hyper Suprime-Cam Year 3 results: Cosmology from cosmic shear two-point correlation functions.** Phys. Rev. D, **108(12):123518, December 2023:123518.** doi: 10.1103/PhysRevD.108.123518

4. **H. Miyatake, Sugiyama, Sunao, M. Takada, et al. Hyper Suprime-Cam Year 3 results: Cosmology from galaxy clustering and weak lensing with HSC and SDSS using the emulator based halo model.** Phys. Rev. D, **108(12):123517, December 2023:123517.** doi: 10.1103/PhysRevD.108.123517

5. **Sugiyama, Sunao, H. Miyatake, S. More, et al. Hyper Suprime-Cam Year 3 results: Cosmology from galaxy clustering and weak lensing with HSC and SDSS using the minimal bias model.** Phys. Rev. D, **108(12):123521, December 2023:123521.** doi: 10.1103/PhysRevD.108.123521

6. **Sugiyama, Sunao, M. Takada, and A. Kusenko. Possible evidence of axion stars in HSC and OGLE microlensing events.** *Physics Letters B*, **840:137891, May 2023:137891.** doi: 10.1016/j.physletb.2023.137891

7. **H. Miyatake, Sugiyama, Sunao, M. Takada, et al. Cosmological inference from an emulator based halo model. II. Joint analysis of galaxy-galaxy weak lensing and galaxy clustering from HSC-Y1 and SDSS.** Phys. Rev. D, **106(8):083520, October 2022:083520.** doi: 10.1103/PhysRevD.106.083520

8. **H. Miyatake, Y. Kobayashi, M. Takada, et al. Cosmological inference from an emulator based halo model. I. Validation tests with HSC and SDSS mock catalogs.** Phys. Rev. D, **106(8):083519, October 2022:083519.** doi: 10.1103/PhysRevD.106.083519

9. **Sugiyama, Sunao. Fast Fourier Transformation Based Evaluation of Microlensing Magnification with Extended Source.** ApJ, **937(2):63, October 2022:63.** doi: 10.3847/1538-4357/ac8df1

10. **Sugiyama, Sunao, M. Takada, H. Miyatake, et al. HSC Year 1 cosmology results with the minimal bias method: HSC ×BOSS galaxy-galaxy weak lensing and BOSS galaxy clustering.** Phys. Rev. D, **105(12):123537,** June 2022:123537. doi: 10.1103/ PhysRevD.105.123537

11. **Sugiyama, Sunao, V. Takhistov, E. Vitagliano, et al. Testing stochastic gravitational wave signals from primordial black holes with optical telescopes.** *Physics Letters B*, **814:136097,** March 2021:136097. doi: 10.1016/j.physletb.2021.136097

12. ***A. Kusenko, M. Sasaki, Sugiyama, Sunao, et al. Exploring Primordial Black Holes from the Multiverse with Optical Telescopes.** Phys. Rev. Lett., **125(18):181304,** October 2020:181304. doi: 10.1103/PhysRevLett.125.181304

13. **Sugiyama, Sunao, M. Takada, Y. Kobayashi, et al. Validating a minimal galaxy bias method for cosmological parameter inference using HSC-SDSS mock catalogs.** Phys. Rev. D, **102(8):083520,** October 2020:083520. doi: 10.1103/PhysRevD. 102.083520

14. **Sugiyama, Sunao, T. Kurita, and M. Takada. On the wave optics effect on primordial black hole constraints from optical microlensing search.** MNRAS, **493(3):3632–3641,** April 2020:3632–3641. doi: 10.1093/mnras/staa407

15. **H. Niikura, M. Takada, N. Yasuda, et al. Microlensing constraints on primordial black holes with Subaru/HSC Andromeda observations.** *Nature Astronomy*, **3:524– 534,** April 2019:524–534. doi: 10.1038/s41550-019-0723-1

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16. **J. Shi, T. Sunayama, T. Kurita, et al. The intrinsic alignment of galaxy clusters and impact of projection effects.** MNRAS, **528(2):1487–1499,** February 2024:1487–1499. doi: 10.1093/mnras/stae064

17. **T. Zhang, X. Li, R. Dalal, et al. A general framework for removing point-spread function additive systematics in cosmological weak lensing analysis.** MNRAS, **525(2):2441– 2471,** October 2023:2441–2471. doi: 10.1093/mnras/stad1801

18. **T. Sunayama, H. Miyatake, Sugiyama, Sunao, et al. Optical Cluster Cosmology with SDSS redMaPPer clusters and HSC-Y3 lensing measurements.** *arXiv eprints*, **arXiv:2309.13025,** September 2023:arXiv:2309.13025. doi: 10.48550/arXiv. 2309.13025

19. **Y. Park, T. Sunayama, M. Takada, et al. Cluster cosmology with anisotropic boosts: validation of a novel forward modelling analysis and application on SDSS redMaPPer clusters.** MNRAS, **518(4):5171–5189,** February 2023:5171–5189. doi: 10.1093/mnras/stac3410