

# PUBLICATION LIST

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\* = Author list alphabeticized

## **Major author**

1. 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. *arXiv e-prints*, arXiv:2304.00704, [April 2023:arXiv:2304.00704](#). doi: 10.48550/arXiv.2304.00704
2. 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. *arXiv e-prints*, arXiv:2304.00703, [April 2023:arXiv:2304.00703](#). doi: 10.48550/arXiv.2304.00703
3. X. Li, T. Zhang, **Sugiyama, Sunao**, et al. Hyper Suprime-Cam Year 3 Results: Cosmology from Cosmic Shear Two-point Correlation Functions. *arXiv e-prints*, arXiv:2304.00702, [April 2023:arXiv:2304.00702](#). doi: 10.48550/arXiv.2304.00702
4. R. Dalal, X. Li, A. Nicola, et al. Hyper Suprime-Cam Year 3 Results: Cosmology from Cosmic Shear Power Spectra. *arXiv e-prints*, arXiv:2304.00701, [April 2023:arXiv:2304.00701](#). doi: 10.48550/arXiv.2304.00701
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. *arXiv e-prints*, arXiv:2304.00705, [April 2023:arXiv:2304.00705](#). doi: 10.48550/arXiv.2304.00705
6. **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
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**, M. Takada, H. Miyatake, et al. HSC Year 1 cosmology results with the minimal bias method: HSC  $\times$  BOSS galaxy-galaxy weak lensing and BOSS galaxy clustering. *Phys. Rev. D*, 105(12):123537, [June 2022:123537](#). doi: 10.1103/PhysRevD.105.123537
10. **Sugiyama, Sunao**, M. Takada, and A. Kusenko. Possible evidence of QCD axion stars in HSC and OGLE microlensing events. *arXiv e-prints*, arXiv:2108.03063, [August 2021:arXiv:2108.03063](#)
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

***Contributing author***

16. 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
17. T. Zhang, X. Li, R. Dalal, et al. A General Framework for Removing Point Spread Function Additive Systematics in Cosmological Weak Lensing Analysis. *arXiv e-prints*, arXiv:2212.03257, **December 2022:arXiv:2212.03257**