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Lilan Yang

Curriculum Vitae

Research Interests

Galaxy Formation and Evolution

Strong Gravitational Lensing

Education

2011–2015 **B.A. in Physics**, *Hunan Normal University*

2015–2017 **M.S. in Astrophysics**, *Beijing Normal University*, **Adivsor:** Zong-hong Zhu

2017–2021 **Ph.D. in Physics**, *Wuhan Univsersity*, **Adivsor:** Zong-hong Zhu

Research Experience

2016 winter **University of Oklahoma, USA**, *Investigation of variability of quasar Mrk 231 from Swift*, **Adivsor:** Prof.Xinyu Dai

2016 summer **INAF-Osservatorio Astrosico di Arcetri, Italy**, *Investigation of X-ray properties of brightest cluster galaxy (BCG)* , **Adivsor:** Dr. Paolo Tozzi

2017 summer **Leiden University, NL**, *Unravelling the effect of the mass and the environment on the radio luminosity function*, **Adivsor:**Prof.Huub Rottgering

2018-2020 **University of California, Los Angeles, USA**, *Cluster-scale gravitational strong lensing*, **Adivsor:** Prof.Tommaso Treu

2021-present **Kavli IPMU, The University of Tokyo, Japan**, *High redshift galaxy & structural properties of galaxies at immediate redshift*, **Host researcher:** Prof.John Silverman

Academic Activities (selected)

Referee – The Astrophysical Journal

Package – Developer of Lenstruction: A python package designed for cluster lensing source reconstruct QSOs, and duals.

– Contributor of Lenstronomy: A python package designed for cluster lensing source reconstruct QSOs, and duals.

– Contributor of Galight: A python package designed for cluster lensing source reconstruct QSOs, and duals.

Collaboration – COSMOS-webb: Decomposition for JWST imaged QSOs;
– GLASS: strong lensing time delay cosmography;
– Subaru HSC: developing tools for galaxy/QSO imaging analysis;

Presentations

2022 **IPMU Colloquium (invited)**,
Kavli IPMU (remotely), Kashiwa, Japan

2022 **COSMOS2022**,
Institut d'Astrophysique de Paris, Paris, France

2021 **SHAO Colloquium (invited)**,
Shanghai Astronomical Observatory, Shanghai, China

2021 **USTC Colloquium (invited)**,
Department of Astronomy - School of Physical Sciences, Hefei, China

2021 **IPMU lunch talk (invited)**,
Kavli IPMU (remotely), Kashiwa, Japan

2021 **NAOC Colloquium**,
National Astronomical Observatory of China, Beijing, China

2020 **Annual Meeting of GLASS**,
University of California, Los Angeles, Los Angeles, USA

2018 **INAF lunch talk**,
Arcetri Astrophysical Observatory , Florence, Italy

2017 **LEAPS workshop**,
The Leiden/ESA Astrophysics Program for Summer Students, Leiden, NL

Publications

— first author publications (8 in total)

2022 "Early results from GLASS-JWST. V: the first rest-frame optical size-luminosity relation of galaxies at $z > 7$", **Yang Lilan**; Morishita, T., Leethochawalit, N., et al. 2022, arXiv:2207.13101

2022 "The size-luminosity relation of lensed galaxies at z 6-9 in the Hubble Frontier Fields", **Yang Lilan** Leethochawalit, N., Treu, T., et al. 2022, MNRAS, 514, 1148

2022 "Event rate predictions of strongly lensed gravitational waves with detector networks and more realistic templates", **Yang Lilan**, Wu, S., Liao, K., et al. 2022, MNRAS, 509, 3772

2021 "The evolution of the size-mass relation at z = 1-3 derived from the complete Hubble Frontier Fields data set", **Yang Lilan**, Roberts-Borsani, G., Treu, T., et al. 2021, MNRAS, 501, 1028

2020 "A versatile tool for cluster lensing source reconstruction - I. Methodology and illustration on sources in the Hubble Frontier Field Cluster MACS J0717.5+3745", **Yang Lilan**, Birrer, S., Treu, T., 2020, MNRAS, 496, 2648

2019 "How Does the Earth's Rotation Affect Predictions of Gravitational Wave Strong Lensing Rates?", **Yang, Lilan**, Ding, X., Biesiada, M., 2019, ApJ, 874, 139

2018 "Swift monitoring observations of Mrk 231: detection of ultraviolet variability", **Yang, Lilan**, Dai, X., Lu, Y., 2018, MNRAS, 480, 5504

2018 "X-Ray Properties of AGN in Brightest Cluster Galaxies. I. A Systematic Study of the Chandra Archive in the $0.2 < z < 0.3$ and $0.55 < z < 0.75$ Redshift Range" **Yang, Lilan**, Tozzi, P., Yu, H., 2018, ApJ, 859, 65

— co-author publications (9 in total)

2022 "RELICS: Small Lensed $z \geq 5.5$ Galaxies Selected as Potential Lyman Continuum Leakers" Chloe Neufeld, Victoria Strait, Maruša Bradač, et al. 2022, MNRAS, 516, 2162

2022 "Early results from GLASS-JWST XIV: A first morphological atlas of the 1< z < 5 Universe in the rest-frame optical" Colin Jacobs, Karl Glazebrook, Antonello Calabrò, et al. 2022 [arXiv:2208.06516]

2022 "Early results from GLASS-JWST. IV: Spatially resolved metallicity in a low-mass $z \sim 3$ galaxy with NIRISS" Xin Wang, Tucker Jones, Benedetta Vulcani, et al. 2022 [arXiv:2207.13113]

2022 "Early results from GLASS-JWST VIII: An Extremely Magnified Blue Supergiant Star at Redshift 2.65 in the Abell 2744 Cluster Field" Wenlei Chen, Patrick L. Kelly, Tommaso Treu, et al. 2022 [arXiv:2207.11658]

2022 "Early results from GLASS-JWST. II: NIRCam extra-galactic imaging and photometric catalog" Emiliano Merlin, Andrea Bonchi, Diego Paris, et al. 2022 [arXiv:2207.11701]

2022 "Early results from GLASS-JWST. III: Galaxy candidates at z∼9-15" Marco Castellano, Adriano Fontana, Tommaso Treu, et al. 2022 [arXiv:2207.09436]

2022 "Impact of gravitational lensing on black hole mass function inference with third-generation gravitational wave detectors", Xianlong He, Kai Liao, Xuheng Ding, et al. 2022 [arXiv:2205.15515]

2021 "Improved time-delay lens modelling and H_0 inference with transient sources", Xuheng Ding, Kai Liao, Simon Birrer, et al. 2021, MNRAS, 504, 5621

2021 "lenstronomy II: A gravitational lensing software ecosystem", Simon Birrer, Anowar J. Shajib, Daniel Gilman, et al. 2021, JOSS, 6, 3283