Yunyang Li

Curriculum Vitae/Aug. 2024

CONTACT

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PROFESSIONAL APPOINTMENTS

Postdoctoral Fellow	KICP, University of Chicago, 2024 –
Research Assistant	Peking University, 2017–2018
Visiting Research Scholar	Univ. of Michigan, Ann Arbor, Fall 2016

RESEARCH INTERESTS

cosmic microwave background; cosmology; data analysis; statistics; high-performance computing

EDUCATION

Ph.D. Astrophysics. Johns Hopkins University. Advisor: Tobias A. Marriage	2018–2024
B.Sc. Physics. Peking University. Advisor: Joel N. Bregman	2013–2017

COLLABORATION

South Pole Telescope (SPT) Collaboration	2024 –
Cosmology Large Angular Scale Surveyor (CLASS) Collaboration	2018 –

REFERENCES

Tobias A. Marriage | Professor | marriage@jhu.edu | 2018 –	Johns Hopkins Univ.
Charles L. Bennett | Bloomberg Distinguished Prof. | cbennett@jhu.edu | 2018 –	Johns Hopkins Univ.
Adam D. Hincks | Assistant Professor | adam.hincks@utoronto.ca | 2020 –	University of Toronto
Renxin Xu | Professor | r.x.xu@pku.edu.cn | 2017 –	Peking University
Joel N. Bregman | H.D. Curtis Prof. | jbregman@umich.edu | 2016 –	Univ. of Michigan, Ann Arbor

SELECTED AWARDS

KICP Postdoctoral Fellowship	University of Chicago, 2024
May-the-Fourth Scholarship	Peking University, 2016
CSC Visiting Fellowship	China Scholarship Council, 2016
Academic Excellence Award	Peking University, 2016
Social Work Award	Peking University, 2014
Mizuho Scholarship	The Affiliated High School of Peking University, 2013

TALK & PRESENTATION

Efficacy of the Variable-delay Polarization Modulator: Lessons Learned from CLASS	
	CMB-S4 Summer Collaboration Meeting, UIUC, 2024
Towards recovery of the largest-scale polarization with CLASS	AAS 243 Dissertation Talk, New Orleans, 2024
Accessing the largest-scale microwave polarization with CLASS	Dicke Candidate Seminar, Princeton, 2023
CLASS: Recent Progress and the 40 GHz Results	FPD Seminar, SLAC, 2023
CLASS: Recent Progress and the 40 GHz Results	W&C Seminar, JHU, 2023
CLASS: Recent Progress and the 40 GHz Results	Cosmology Group, CCA, 2023
Atmospheric Cloud Polarization	Cosmo Group, Princeton, 2023
Constraints on CMB Temperature evolution with SZ clusters	W&C Seminar, JHU, 2020
The properties of the Galactic hot gaseous halo from X-ray emission	AAS 231, DC, 2018
Is Calvera a strangeon star?	AAS 231, DC, 2018
The hot gaseous halo of the Milky Way including radiative transfer effects	AAS 229, Grapevine, 2017

Introduction to Galaxies and Active Galactic Nuclei (TA, 171.314)   Johns Hopkins Univ., Spring, 2020

General Physics/Lab II (TA, 171.104)   Johns Hopkins Univ., Spring, 2019

OUTREACH

Johns Hopkins Physics Fair   Baltimore, MD, 2019

Introduction to Astronomy and Physics   Tangnan Second Middle School, Jiangxi, China, 2014

PUBLICATIONS ⓘ ⓐ g̱   h-index: 9, citations: 343

AS FIRST AUTHOR

5. CLASS Observations of Atmospheric Cloud Polarization at millimeter Wavelengths
   ApJ 958, 154 (2023) │ **YL** & CLASS Collaboration

4. CLASS Data Pipeline and Maps for 40 GHz Observations through 2022
   ApJ 956, 77 (2023) │ **YL** & CLASS Collaboration

3. Constraining Cosmic Microwave Background Temperature Evolution With Sunyaev-Zel'Dovich Galaxy Clusters from the Atacama Cosmology Telescope
   ApJ 922, 136 (2021) │ **YL**; Hincks, Adam D. & ACT Collaboration

2. Calvera: A Low-mass Strangeon Star Torqued by Debris Disk?
   ApJ 854, 165 (2018) │ **YL**; Wang, Weiyang; Ge, Mingyu; Liu, Xiongwei; Tong, Hao & Xu, Renxin

1. The Properties of the Galactic Hot Gaseous Halo from X-Ray Emission
   ApJ 849, 105 (2017) │ **YL** & Bregman, Joel

AS CONTRIBUTING COAUTHOR

6. Cosmology Large Angular Scale Surveyor (CLASS): 90 GHz Telescope Pointing, Beam Profile, Window Function, and Polarization Performance
   ApJS 273, 26 (2024) │ Datta, Rahul; Brewer, Michael K.; Denes Couto, Jullianna; Eimer, Joseph; **YL** & CLASS Collaboration

5. CLASS Angular Power Spectra and Map-component Analysis for 40 GHz Observations through 2022
   ApJ 963, 92 (2024) │ Eimer, Joseph R.; **YL** & CLASS Collaboration

4. Two Year Cosmology Large Angular Scale Surveyor (CLASS) Observations: Long Timescale Stability Achieved with a Front-end Variable-delay Polarization Modulator at 40 GHz
   ApJ 922, 212 (2021) │ Harrington, Kathleen & **CLASS Collaboration**

3. Two-year Cosmology Large Angular Scale Surveyor (CLASS) Observations: 40 GHz Telescope Pointing, Beam Profile, Window Function, and Polarization Performance
   ApJ 891, 134 (2020) │ Xu, Zhilei; Brewer, Michael K.; Fluxá Rojas, Pedro; **YL** & CLASS Collaboration

2. Two-year Cosmology Large Angular Scale Surveyor (CLASS) Observations: A Measurement of Circular Polarization at 40 GHz
   ApJ 889, 105 (2020) │ Padilla, Ivan L.; Eimer, Joseph R.; **YL** & CLASS Collaboration

1. The optical/UV excess of X-ray-dim isolated neutron star II. Nonuniformity of plasma on a strangeon star surface
   RAA 18, 082 (2018) │ Wang, Wei-Yang; Feng, Yi; Lai, Xiao-Yu; **YL**; Lu, Ji-Guang; Chen, Xuelei & Xu, Ren-Xin

REVIEW/ADVISORY CONTRIBUTION

7. Sensitivity-improved Polarization Maps at 40 GHz with CLASS and WMAP Data
   ApJ 971, 41 (2024) │ Shi, Rui & **CLASS Collaboration**

6. Microwave Observations of Venus with CLASS
   PSJ 4, 154 (2023) │ Dahal, Sumit & **CLASS Collaboration**

5. Testing Cosmic Microwave Background Anomalies in E-mode Polarization with Current and Future Data
   ApJ 945, 79 (2023) │ Shi, Rui & **CLASS Collaboration**

4. Calibration of Transition-edge Sensor (TES) Bolometer Arrays with Application to CLASS
   ApJS 262, 52 (2022) │ Appel, John W. & **CLASS Collaboration**

3. Four-year Cosmology Large Angular Scale Surveyor (CLASS) Observations: On-sky Receiver Performance at

40, 90, 150, and 220 GHz Frequency Bands
`ApJ 926, 33 (2022)` │ Dahal, Sumit & **CLASS Collaboration**

2. The Extended Distribution of Baryons around Galaxies
`ApJ 862, 3 (2018)` │ Bregman, Joel N.; Anderson, Michael E.; Miller, Matthew J.; Hodges-Kluck, Edmund; Dai, Xinyu; Li, Jiang-Tao; **YL** & Qu, Zhijie

1. Merging strangeon stars
`RAA 18, 024 (2018)` │ Lai, Xiao-Yu; Yu, Yun-Wei; Zhou, En-Ping; **YL** & Xu, Ren-Xin