

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. | jnbregman@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

Measurement of the Largest-scale E-mode polarization with CLASS Gravity Group Seminar, Princeton, 2025
Polarimetry with the CLASS telescope KICP Chalk talk, Chicago, 2024
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 invited 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

<i>Constraints on CMB Temperature evolution with SZ clusters</i>	W&C Seminar, JHU, 2020
<i>The properties of the Galactic hot gaseous halo from X-ray emission</i>	AAS 231, DC, 2018
<i>Is Calvera a strangeon star?</i>	AAS 231, DC, 2018
<i>The hot gaseous halo of the Milky Way including radiative transfer effects</i>	AAS 229, Grapevine, 2017

TEACHING

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

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

8. Sensitivity-improved Polarization Maps at 40 GHz with CLASS and WMAP Data
ApJ 971, 41 (2024) | Shi, Rui & CLASS Collaboration
7. HoverCal + PoloCalC: precise on-flight metrology performance results over CLASS telescope
SPIE 13102, 1310217 (2024) | Dünner, Rolando; Astori, Federico; Coppi, Gabriele; Eimer, Joseph; Errard, Josquin; Fluxá, Juan; YL; Mezzananza, Noemi; Nati, Federico; Petroff, Matthew; Puddu, Roberto; Rojas, Matías & Zannoni, Mario

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