

CONTACT

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EDUCATION

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

RESEARCH EXPERIENCE

Graduate Research Assistant Johns Hopkins University, 2018, 2020–2024
 Research Assistant Peking University, 2017–2018
 Visiting Research Scholar Univ. of Michigan, Ann Arbor, 2016–2017

RESEARCH INTERESTS

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

REFERENCES

Letter writers

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

Additional references

Renxin Xu | Professor | r.x.xu@pku.edu.cn | 2017 – Peking University
Joel N. Bregman | H.D. Curtis Prof. | jrbregman@umich.edu | 2016 – Univ. of Michigan, Ann Arbor

COLLABORATION

Cosmology Large Angular Scale Surveyor (CLASS) Collaboration 2018 –

SELECTED AWARDS

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

Towards recovery of the largest-scale polarization with CLASS: Data Pipeline Development and First Linear Polarization Survey Results

CLASS: Recent Progress and the 40 GHz Results invited AAS 243 Dissertation talk, LA, 2024
 CLASS: Recent Progress and the 40 GHz Results invited FPD Seminar, SLAC, 2023
 CLASS: Recent Progress and the 40 GHz Results invited W&C Seminar, JHU, 2023
 Atmospheric Cloud Polarization Cosmology Group, CCA, 2023
 Constraints on CMB Temperature evolution with SZ clusters invited Cosmo Group, Princeton, 2023
 The properties of the Galactic hot gaseous halo from X-ray emission W&C Seminar, JHU, 2020
 Is Calvera a strangeon star? AAS 231, DC, 2018
 The hot gaseous halo of the Milky Way including radiative transfer effects AAS 229, TX, 2017

TEACHING

OUTREACH

Johns Hopkins Physics Fair	Baltimore, MD, 2019
Introduction to Astronomy and Physics	Tangnan Second Middle School, Jiangxi, 2014

PUBLICATIONS

AS FIRST AUTHOR

5. CLASS Observation of Atmospheric Cloud Polarization at Millimeter Wavelengths
YL & CLASS Collaboration
ApJ Accepted
4. CLASS Data Pipeline and Maps for 40 GHz Observations through 2022
YL & CLASS Collaboration
ApJ 956, 77 (2023)
3. Constraining Cosmic Microwave Background Temperature Evolution With Sunyaev–Zel’Dovich Galaxy Clusters from the Atacama Cosmology Telescope
YL; Hincks, Adam D. & ACT Collaboration
ApJ 922, 136 (2021)
2. Calvera: a low-mass strangeon star torqued by debris disk?
YL; Wang, Weiyang; Ge, Mingyu; Liu, Xiongwei; Tong, Hao; Xu, Renxin
ApJ 854, 165 (2018)
1. The properties of the Galactic hot gaseous halo from X-ray emission
YL & Bregman, Joel N.
ApJ 849, 105 (2017)

AS CONTRIBUTING COAUTHOR

5. CLASS Angular Power Spectra and Map-Component Analysis for 40 GHz Observations through 2022
Eimer, Joseph R.; **YL** & CLASS Collaboration
Submitted to ApJ
4. Cosmology Large Angular Scale Surveyor (CLASS): 90 GHz Telescope Pointing, Beam Profile, Window Function, and Polarization Performance
Datta, Rahul; Brewer, Michael K.; Denes Couto, Jullianna; Eimer, Joseph R.; **YL** & CLASS Collaboration
Submitted to ApJS
3. Two-year Cosmology Large Angular Scale Surveyor (CLASS) Observations: 40 GHz Telescope Pointing, Beam Profile, Window Function, and Polarization Performance
Xu, Zhilei; Brewer, Michael K.; Fluxá Rojas, Pedro; **YL** & CLASS Collaboration
ApJ 891, 134 (2020)
2. Two-year Cosmology Large Angular Scale Surveyor (CLASS) Observations: A Measurement of Circular Polarization at 40 GHz
Padilla, Ivan L.; Eimer, Joseph R.; **YL** & CLASS Collaboration
ApJ 889, 105 (2020)
1. The optical/UV excess of X-ray-dim isolated neutron star II. nonuniformity of plasma on strangeon star surface
Wang, Weiyang; Feng, Yi; Lai, Xiaoyu; **YL**; Lu, Jiguang; Chen, Xuelei; Xu, Renxin
RNN 18, 082 (2018)

REVIEW/ADVISORY CONTRIBUTION

7. Microwave Observations of Venus with CLASS
Dahal, Sumit & **CLASS Collaboration**
PSJ 4, 154 (2023)
6. Testing CMB Anomalies in E-mode Polarization with Current and Future Data
Shi, Rui & **CLASS Collaboration**
ApJ 945, 79 (2023)
5. Four-year Cosmology Large Angular Scale Surveyor (CLASS) Observations: On-sky Receiver Performance at 40, 90, 150, and 220 GHz Frequency Bands

Dahal, Sumit & **CLASS Collaboration**

ApJ 926, 33 (2022)

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

Harrington, Kathleen & **CLASS Collaboration**

ApJ 922, 212 (2021)

3. Calibration of Transition-edge Sensor (TES) Bolometer Arrays with Application to CLASS

Appel, John W. & **CLASS Collaboration**

ApJS 262, 52 (2022)

2. The extended distribution of baryons around galaxies

Bregman, Joel N.; Anderson, Michael E.; Miller, Matthew J.; Hodges-Kluck, Edmund; Dai, Xinyu; Li, Jiang-tao; **YL**; Qu, Zhijie

ApJ 862, 003 (2018)

1. Merging strangeon stars

Lai, Xiaoyu; Yu, Yunwei; Zhou, Enping; **YL**; Xu, Renxin

RNN 18, 024 (2018)