

## 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. | jnbregman@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* AAS 243 Dissertation Talk, LA, 2024  
*Accessing the largest-scale microwave polarization with CLASS* invited 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* invited 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* invited 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, TX, 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  
Introduction to Astronomy and Physics

Baltimore, MD, 2019  
Tangnan Second Middle School, Jiangxi, 2014

PUBLICATIONS  

h-index 8, citations 296

## AS FIRST AUTHOR

5. CLASS Observation of Atmospheric Cloud Polarization at Millimeter Wavelengths  
**YL** & CLASS Collaboration  
ApJ in press
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, Xuele; 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)