

## CONTACT

Department of Physics & Astronomy  
Johns Hopkins University  
Bloomberg 203  
3400 N. Charles St. Baltimore, MD, 21218

✉ yunyangl@jhu.edu  
🏠 liyunyang.github.io  
🆔 0000-0002-4820-1122  
🔄 github.com/LiYunyang

## 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

## PROFESSIONAL APPOINTMENTS

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

## COLLABORATION

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

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, New Orleans, 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* 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

## 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

## 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 author

6. CLASS Angular Power Spectra and Map-Component Analysis for 40 GHz Observations through 2022  
arXiv 2309.00675 (2023) | Eimer, Joseph R.; YL & CLASS Collaboration
5. Cosmology Large Angular Scale Surveyor (CLASS): 90 GHz Telescope Pointing, Beam Profile, Window Function, and Polarization Performance  
arXiv 2308.13309 (2023) | Datta, Rahul; Brewer, Michael K.; Denes Couto, Jullianna; Eimer, Joseph; 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

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