

Chris "Le" Wang

Curriculum Vitae



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EDUCATION

AUG. 2021 – MAY 2025	Johns Hopkins University, Baltimore, MD, USA BSc in Computer Science and Physics GPA: 3.97/4.00 Minor: Applied Mathematics & Statistics, Mathematics
AUG. 2018 – MAY 2021	Hangzhou Foreign Languages School, Hangzhou, China GCE A-Level & Chinese High School Diploma GPA: 4.0/4.0

RESEARCH PROJECTS

JAN. 2022 – PRESENT	Schlaufman Exoplanet Group Advisor: Dr. Kevin C. Schlaufman <ul style="list-style-type: none">• Unresolved Binary Star Rejection: assemble photometry for every star confirmed as an open cluster member by Gaia. Write algorithms fit Hertzsprung–Russell diagrams and reject unresolved binary stars in Python.• Stellar Elemental Abundance and Planet Formation: Simulate the mass evolution of stellar surface convective zone using Modules for Experiments in Stellar Astrophysics (MESA). Determine the relationship between stellar abundance pattern and planet formation. Coded in Python, C++, Bash, and Fortran.
MAY 2022 – PRESENT	Sing Exoplanet Group Advisors: Dr. David K. Sing, Zafar Rustamkulov <ul style="list-style-type: none">• JWST data reduction: Optimize James Webb Space Telescope's Bright Object Time Series Python codes using nested sampling to extract transit light curves; reduced the light curve extraction runtime by an order of magnitude.• Transmission Spectroscopy: Use JWST SOSS and NIRSpec commissioning data to extract transmission spectroscopy of Hat-p-14.
APR. 2020 – NOV. 2020	Polar Research Institute of China (PRIC) Advisor: Dr. Peng Jiang <ul style="list-style-type: none">• General Relativity Testing: coauthored a paper (three authors contributed equally) on the possibility to detect general relativity in exoplanet systems. Derived an analytic formula evaluating the sensitivity of perihelion's precession in radial velocity measurements. Explored the possibility to detect general relativistic precession in exoplanets through radial velocity measurements using RadVel.

JAN 2020 – MAY 2020

Duke University

Advisor: Dr. Thomas C. Mehen

- **Quantum Computing:** coauthored a paper on testing Bell's and Mermin's inequalities on quantum computers. Designed two-Qbit and three-Qbit quantum circuits and analyzed simulation results.

JULY 2019 – SEPT. 2019

Electron Microscopy Laboratory, Peking University

Advisors: Dr. Qiao Liu

Spreading Dynamics of Precursor Film: reviewed research literature on fluid dynamics, inspected data, and learned microscopy techniques. Conducted simulation experiments to investigate the spreading mechanism of precursor film on a high energy surface and low energy surface; present an 11-page research report.

PUBLICATIONS

Wang & Schlaufman, "Elemental Abundance Trends with Condensation Temperature are Unrelated to Planet Formation" *in prep.*

Xirui Gou et al. [including **L. Wang**], "General Relativity Testing in Exoplanetary Systems " *IOP Conf. Ser.: Earth Environ. Sci.* (2021).

Yangping Zheng et al. [including **L. Wang**], "Test of Bell's and Mermin's inequalities on Quantum Computer" *2020 2nd International Conference on Information Technology and Computer Application* (2020).

AWARDS & FELLOWSHIPS

2023	Summer Provost's Undergraduate Research Award \$6,000, JHU, Research fellowship
2023	Krieger School of Arts & Science Research Award (Dean's ASPIRE Grants) \$2,474, JHU, Research fellowship
2022	Hophacks 2nd place Hopkins's premier 36-hour hackathon. 2/40. \$512 prize.
2022	Quest2Learn Most Innovative Platform to Help with Learning Awarded for creating an application that helps with learning.
2022	Bloomberg Distinguished Professor Fellowship \$6,000, JHU, Research fellowship
2021–PRESENT	Dean's List Excellence in academics. Awarded every semester (4/4).

TALKS & PRESENTATIONS

JUNE 2023	Elemental Abundance Trends with Condensation Temperature are Unrelated to Planet Formation <i>Origins of Solar Systems Gordon Research Conference, Mount Holyoke College, MA</i>
AUG. 2022	Optimizing JWST BOTS Transit Light Curve Fitting <i>The Center for Astrophysics Research Experience, Johns Hopkins University, MD</i>

TEACHING APPOINTMENTS

2023 SPRING	Teaching Assistant, AS.171.101 General Physics I (Undergraduate, 46 students)
2022 FALL	Teaching Assistant, AS.171.101 General Physics I (Undergraduate, 23 students)

SKILLS

PROGRAMMING	Python, C/C++, Java, Assembly, Matlab, R, HTML, CSS, JavaScript, Bash, \LaTeX
LANGUAGES	English, Chinese, French
ASTRONOMY SOFTWARES	DS9, MESA
OTHER	Git, Mathematica, JupyterLab, Adobe Lightroom, Adobe Photoshop, Blender