

Calder Lenhart
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Columbus, OH, USA

Education

2020–2024 **B.S. Physics; Astronomy & Astrophysics**, Ohio State University
Magna cum laude, with Research Distinction in Astronomy & Astrophysics
Minors in Mathematics; History
Thesis: [Phase-resolved cross-correlation transmission spectroscopy of KELT-20b](#)

Research Experience

2023– Undergraduate Researcher, Department of Astronomy, Ohio State University, (Advisor: [Dr. Marshall C. Johnson](#), Co-advisor: [Prof. Ji Wang](#))
2022–2023 Undergraduate Research Assistant, Department of Materials Science and Engineering, Ohio State University, (Advisor: [Prof. Sheikh Akbar](#))

Awards & Honors

2024 Ann Slusher Tuttle Undergraduate Scholarship, Ohio State University Department of Astronomy
2023 Undergraduate Research Scholarship, Ohio State University College of Arts and Sciences
2023 1st Place, MakeOHI/O 2023
2020 Eagle Scout, Boy Scouts of America
2019 Youngstown CityScape Beautification Watch Award

Publications

 [Google Scholar](#)

Conference Proceedings

C1. **Lenhart, C.**, Johnson, M., Petz, S., Wang, J., Pai Asnodkar, A., Strassmeier, K. & Ilyin, I. *Analysis of KELT-20b's Atmospheric Dynamics Using PEPSI: Line Profiles During Transit and Velocity Offsets in American Astronomical Society Meeting Abstracts* **243** (Feb. 2024), 179.09.

Working papers

W1. Basinger, C., Johnson, M. C., Wang, J., Duck, A., Pai Asnodkar, A., Petz, S., **Lenhart, C.**, Ilyin, I. & Strassmeier, K. *PEPSI Investigation, Retrieval, and Atlas of Numerous Giant Atmospheres (PIRANGA). III. Composition and winds in the atmosphere of TOI-1518 b* Mar. 2025. arXiv: [2503.07723 \[astro-ph.EP\]](#).

- W2. **Lenhart, C.**, Johnson, M. C., Wang, J., Pai Asnodkar, A., Petz, S., Duck, A., Strassmeier, K. G. & Ilyin, I. *PEPSI Investigation, Retrieval, and Atlas of Numerous Giant Atmospheres (PI-RANGA). II. Phase-Resolved Cross-Correlation Transmission Spectroscopy of KELT-20b* Mar. 2025. arXiv: [2503.07719](https://arxiv.org/abs/2503.07719) [[astro-ph.EP](#)].

Presentations

Talks

- T1. **Lenhart, C.** & Johnson, M. *Analysis of an Ultra-Hot Jupiter's Atmosphere* Ohio State Department of Astronomy Summer Undergraduate Research Program Symposium (Columbus, OH, USA). July 2023.

Posters

- P1. **Lenhart, C.**, Johnson, M. C., Wang, J., Asnodkar, A. P., Petz, S., Strassmeier, K. G. & Ilyin, I. *Analysis of KELT-20b's Transmission Spectrum: Atmospheric Dynamics of Atomic Species* 243rd Meeting of the American Astronomical Society (New Orleans, LA, USA). Jan. 2024. <https://aas243-aas.ipostersessions.com/Default.aspx?s=89-34-93-49-20-C4-FB-46-1F-28-CD-79-11-D0-C0-38>.

Work Experience

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| 2025– | Physics AI Trainer, Mercor , Remote (Independent Contractor) |
| 2022–2023 | Private Tutor, Wyzant , Remote (Independent Contractor) |
| 2021–2022 | Math Tutor, Ohio State University Mathematics and Statistics Learning Center , Columbus, OH |

Projects

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| 2023 | Machine Learning: Linking Writing Processes to Writing Quality, GitHub |
| 2023 | Make OHI/O Makeathon (Intel Challenge), Submission |
| 2022 | NASA Proposal Writing and Evaluation Experience , Engineering Team |
| 2021–2022 | Buckeye Solar Racing , Aerodynamics Team |
| 2021 | NASA L'SPACE Mission Concept Academy , Astrophysics Team & Engineering Team |

Last updated: March 23, 2025