#### Calder Lenhart

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## **Education**

2020–2024 B.S. Physics; Astronomy & Astrophysics, Ohio State University

Minor in Mathematics, Minor in History

Magna cum laude, with Research Distinction in Astronomy & Astrophysics

Thesis: Phase-Resolved Cross-Correlation Transmission Spectroscopy of KELT-20b

# Research Experience

2023–	Undergraduate Researcher, Department of Astronomy, Ohio State University, (Advi-
	sor: Dr. Marshall C. Johnson, Co-advisor: Prof. Ji Wang)
2022-2023	Undergraduate Research Assistant, Department of Materials Science and Engineer-
	ing, 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 ORCID

#### **Journal Articles**

- 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 [astro-ph.EP].

## **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.

## **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**

2025-	Physics AI Trainer, Mercor, Remote (Independent contractor for top AI research lab)
2023-2024	Astrophysics Researcher, Ohio State Department of Astronomy Summer Undergrad-
	uate Research Program in Astrophysics, Columbus, OH
2022-2023	Private Tutor, Grade Potential Tutoring, Columbus, OH (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**

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