

## Curriculum Vitae

**Stephen Kerby**

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### Education

**Pennsylvania State University**

Department of Astronomy and Astrophysics (2019-present)

M.S. in Astronomy and Astrophysics (2021)

**Case Western Reserve University**

Department of Physics, Department of Astronomy

B.S. in Physics (2019), B.S. in Astronomy (2019)

### Awards & Honors

**Willaman Distinguished Graduate Fellow** PSU Eberly College of Science (2019-2020)

**Homer F. Braddock Scholarship** PSU Eberly College of Science (2019-2020)

**Michelson-Morley Scholarship** Case Western Reserve University (2015-2019)

**John Schoff Millis Award** Case Western Reserve University (2019)

**Leslie L. Foldy Prize** CWRU Department of Physics (2019)

**Polykarp Kusch Prize** CWRU Department of Physics (2019)

**Richard L. Garwin Prize** CWRU Department of Physics (2019)

**Albert A. Michelson Prize** CWRU Department of Physics (2018)

### Courses Taught

**ASTRO 1: The Astronomical Universe** Summer 2022

*An introductory course intended for non-majors focusing on the scientific method, observational and theoretical astronomy, and current topics of astronomy and astrophysics research*

### Professional Employment

**Argonne National Laboratory** Research Assistant (2017)

**Fermi National Accelerator Laboratory** Research Assistant (2013-2016)

### Mentoring & Outreach

**PSU Graduate & Professional Student Association - College Representative** (2022)

**PSU Astro on Tap Organizing Committee** (2021-present)

**PSU Dept. of Astronomy and Astrophysics Undergraduate Mentor** (2020-2021)

**PSU Dept. of Astronomy and Astrophysics Outreach Committee** (2019-present)

**CWRU Department of Physics Teaching Assistant** (2016)

### Publications in Refereed Journals: Major Contributor or First Author

1. “*On the Prospect of Using the Maximum Circular Velocity of Halos to Encapsulate Assembly Bias in the Galaxy-Halo Connection*”: Zehavi, **Kerby**, Contreras et al. (2019), The Astrophysical Journal 887 17
2. “*X-Ray Spectra and Multiwavelength Machine Learning Classification for Likely Counterparts to Fermi 3FGL Unassociated Sources*”: **Kerby**, Kaur, Falcone et al. (2021), The Astronomical Journal 161 154
3. “*Stellar Gravitational Lens Engineering for Interstellar Communication and Artifact SETI*”: **Kerby** & Wright (2021), The Astronomical Journal 162 6
4. “*Multiwavelength Spectral Analysis and Neural Network Classification of Counterparts to 4FGL Unassociated Sources*”: **Kerby**, Kaur, Falcone et al. (2021), The Astrophysical Journal 923 1
5. “*Using Neural Networks to Differentiate Newly Discovered BL Lacs and FSRQs among the 4FGL Unassociated Sources Employing Gamma-ray, X-ray, UV/Optical and IR Data*”: Kaur, **Kerby**, & Falcone (2022), The Astronomical Journal

### Publications in Refereed Journals: Minor Contributor

1. “*Probing the origin of 4FGL J0822.8–4207: cosmic ray illumination from the SNR Puppis A and the Herbig-Haro object HH219*”: Araya, Guti, & **Kerby** (2021), MNRAS 21 3147
2. “*A Search for Radio Tehnosignatures at the Solar Gravitational Lens Targeting Alpha Centauri*”: Tusay, Huston, Dedrick, **Kerby** et al. (2022)

### **Poster Presentations**

1.  *$V_{\max}$  as Primary Dark Halo Property*: Case Western Reserve University Senior Thesis Poster Conference, May 2019
2. *Machine Learning in X-ray Astronomy*: Institute for Foundations of Data Science 2021 Summer School, July 2021
3. *Counterpart Detection, Spectral Analysis, and ML Classification of 4FGL Unassociated Sources*: AAS 239 Salt Lake City, January 2022 (canceled due to pandemic)
4. *Counterpart Detection, Spectral Analysis, and ML Classification of 4FGL Unassociated Sources*: HEAD 19 Pittsburgh, March 2022
5. *New Discoveries and Classifications from Swift-XRT Follow-up at 4FGL Unassociated Sources*: AAS 240 Pasadena, June 2022 (remote due to pandemic)

### **Conference Talks and Presentations**

1. *Stellar Gravitational Lens Engineering for Artifact SETI*: 2021 Assembly of the Order of the Octopus, State College PA, July 2021
2. *Deciphering Gamma-ray Mysteries with Swift-XRT*: 42nd Central Pennsylvania Consortium Astronomer's Meeting, Gettysburg PA, April 2022

### **Public and Department Talks**

1. *ET Phone Home!: SETI and Exploration with Gravitational Lensing*: PSU Astro on Tap, December 2020
2. *A Multiwavelength Hunt for Pulsars and Blazars*: PSU Dept. of A&A Tuesday Lunch Talk, April 2021