

Kiersten M. Boley

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kboley3.github.io/kboley/

RESEARCH INTERESTS

Planet formation and habitability, Influences of stellar abundances on planet formation, Exoplanet detection and characterization using the transit method, Evolution of terrestrial planet interiors and plate tectonics

EDUCATION

The Ohio State University

Ph.D. in Astronomy

Advisor: Ji Wang

Columbus, OH

expected May 2024

Georgia Institute of Technology

Bachelor of Science in Physics

Concentration in Astrophysics

Minor in German

Atlanta, GA

May 2019

Georgia Highlands College

Associate of Science in Physics

Rome, GA

May 2015

RESEARCH EXPERIENCE

Graduate Student Researcher, Advisor: Ji Wang

The Ohio State University

August 2019 – Present

Columbus, OH

- Constraining hot Jupiter planet occurrence in the metal-poor regime ($-2.0 \leq [\text{Fe}/\text{H}] \leq -0.6$) using TESS data

Student Researcher, Advisor: William Dawson

Lawrence Livermore National Laboratory

May 2018–August 2019

Livermore, CA

- Investigated the predicted counter images of a high redshift ($z \sim 10$) lensed galaxy candidate, SPT0615-JD, using a maximum likelihood detection method

Student Research Intern

Georgia Tech Research Institute

January 2018–May 2018

Atlanta, GA

- Created procedures for radiation and environmental testing of various materials and designed containers for storage radioactive materials

Research and Development Intern

Mohawk Industries

January 2015– May 2015

Lyerly, GA

- Developed adhesives for carpet backing using various heating methods and machinery to test durability

HONORS & AWARDS

Dean's Distinguished Graduate Fellowship

May 2019

National Defense Committee Medal

May 2019

The Nation Society of the Daughters of the American Revolution

James F. Towers Scholarship

August 2018

Lawrence Livermore National Laboratory, Deputy Director's coin

August 2018

Segal Americorps Educational Award

June 2018

The Armed Forces Communications and Electronics Association, Honor Award

May 2018

Army ROTC Scholarship

September 2016

Hope Scholarship

August 2014

PRESENTATIONS

- “The Occurrence of Hot Jupiters in the Metal-Poor Regime revisited by TESS” January 2021
American Astronomical Society, 237th Meeting *Virtual due to COVID-19*
- “Raiders of Lost Arcs: Faint Galaxy Detection” August 2018
2018 Summer Symposium, Lawrence Livermore National Laboratory *Livermore, CA*

PUBLICATIONS

1. **Boley, K.**, Wang, J., Zinn, J., et al., “Searching For Transiting Planets Around Halo Stars. II. Constraining the Occurrence Rate of Hot Jupiters”, 2021, *Submitted*

EMPLOYMENT

- Executive Officer** | *U.S. Army* May 2019 – Present
- Responsible for planning and scheduling all training for the entire 676th Ground Ambulance Company (~100 soldiers)
 - Responsible for ~1.2 million dollars worth of equipment
- Dance Instructor** | *Baird Ballet* July 2011 –December 2017
- Created and implemented ballet, jazz, and contemporary dance curriculum for students between the ages of 3-16 years old
- Office Manager** | *Techwood Consulting* July 2015 – December 2015
- Performed administrative and office management duties necessary to support corporate officers
- Lead Teller** | *Suntrust* June 2014 – January 2015
- Accurately processed customer cash, check, transfer, and statement transactions, with a balanced or reconciled drawers

OUTREACH & SERVICE

- Mentor** | *SciAccess Zenith Mentorship Program* February 2021 – present
Provides mentorship for blind and visually impaired high-school students that are interested in astronomy
- Mentor** | *Polaris Mentorship Program* August 2020 – Present
Provides mentorship to under-represented undergraduates in Physics and Astronomy
- Panelist** | *Monthly Movie Nights - Science Fiction vs Science Fact* February 2021
Served as a panelist for the Q&A webinar for the movie “2001: A Space Odyssey”
- Graduate Representative** | *AIP TEAM-UP Workshop* January 2021
Represented the OSU Astronomy Department at this workshop that educates on strategies to recruit and retain African-American undergraduate students in Astronomy and Physics by creating an inclusive environment
- Volunteer Coordinator** | *Jumpstart* August 2017 – May 2019
Recruited, managed, and trained 190 recruited volunteers to serve 2 preschools for assorted Jumpstart service projects
- Team Leader** | *Jumpstart* August 2016–August 2017
Led 5 peers to provide developmentally appropriate educational activities, with a focus on language and literacy, to young children
- Corps Member** | *Jumpstart* August 2015–August 2016
Implemented early childhood curriculum, supported family involvement, promoted children’s language and literacy skills through ongoing relationships with 20 children, and increased adult support in the learning environment
- Volunteer** | *Mission is Possible* August 2013–May 2015
Served in various roles from working with disabled children to cleaning elderly couple’s homes to improve the community in Rome, GA

COMPUTATIONAL SKILLS

Python, MATLAB, HTML/CSS, L^AT_EX

SCHOLARLY MEMBERSHIPS

American Astronomical Society	Junior Member
National Society of Black Physicists	Full Member
Phi Theta Kappa	Member