

Kiersten M. Boley

The Ohio State University
140 West 18th Ave. Columbus OH, 43210
boley.62@osu.edu ◇ 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

NSF Graduate Research Fellowship

March 2021

Two Sigma Diversity PhD Research Grant (\$2000)

March 2021

Two Sigma Diversity Fellowship Finalist

March 2021

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 & POSTERS

“Constraining the Metallicity required for Planet Formation” Emerging Researchers in Exoplanet Science 2021	May 2021 <i>Virtual due to COVID-19</i>
“Hot Jupiter Occurrence within the Metal-Poor Regime revisited by TESS” Space Telescope Science Institute, 2021 Spring Symposium	April 2021 <i>Virtual due to COVID-19</i>
“Hot Jupiter Occurrence within the Metal-Poor Regime” Two Sigma, Finalist Reception	February 2021 <i>Virtual due to COVID-19</i>
“The Occurrence of Hot Jupiters in the Metal-Poor Regime revisited by TESS” American Astronomical Society, 237th Meeting	January 2021 <i>Virtual due to COVID-19</i>
“Raiders of Lost Arcs: Faint Galaxy Detection” Lawrence Livermore National Laboratory, 2018 Summer Symposium	August 2018 <i>Livermore, CA</i>

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, *Accepted*

EMPLOYMENT

Executive Officer <i>U.S. Army</i> <ul style="list-style-type: none">□ 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	May 2019 – Present
Dance Instructor <i>Baird Ballet</i> <ul style="list-style-type: none">□ Created and implemented ballet, jazz, and contemporary dance curriculum for students between the ages of 3-16 years old	July 2011 – December 2017
Office Manager <i>Techwood Consulting</i> <ul style="list-style-type: none">□ Performed administrative and office management duties necessary to support corporate officers	July 2015 – December 2015
Lead Teller <i>Suntrust</i> <ul style="list-style-type: none">□ Accurately processed customer cash, check, transfer, and statement transactions, with a balanced or reconciled drawers	June 2014 – January 2015

OUTREACH & SERVICE

Academic Facilitator <i>URSA Program</i> <i>Creates Astronomy and Physics Curriculum and teaches incoming undergraduate students from under-represented groups</i>	March 2021 – Present
Graduate Representative <i>AIP TEAM-UP Workshop</i> <i>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</i>	December 2020 - Present
Mentor <i>Polaris Mentorship Program</i> <i>Provides mentorship to under-represented undergraduates in Physics and Astronomy</i>	August 2020 – Present
Mentor <i>SciAccess Zenith Mentorship Program</i> <i>Provides mentorship for blind and visually impaired high-school students that are interested in astronomy</i>	February 2021 – April 2021
Panelist <i>Monthly Movie Nights - Science Fiction vs Science Fact</i> <i>Served as a panelist for the Q&A webinar for the movie “2001: A Space Odyssey”</i>	February 2021

- 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