

Kiersten M. Boley

Carnegie Institution for Science
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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	Columbus, OH
Ph.D. in Astronomy	May 2024
Master's in Astronomy	August 2021
Georgia Institute of Technology	Atlanta, GA
Bachelor of Science in Physics	May 2019
Concentration in Astrophysics	
Minor in German	
Georgia Highlands College	Rome, GA
Associate of Science in Physics	May 2015

APPOINTMENTS

NASA Sagan Postdoctoral Fellow	November 2024 – October 2027
EPL and Observatories, Carnegie Institution for Science	Pasadena, CA
Carnegie Postdoctoral Fellow	November 2027 – November 2029
Observatories, Carnegie Institution for Science	Pasadena, CA
NSF Graduate Research Fellow	August 2021 – August 2024
The Ohio State University	Columbus, OH
IPAC Visiting Graduate Student Fellow	January 2022 – August 2022
California Institute of Technology, IPAC	Pasadena, CA
Dean's Distinguished Graduate Research Fellow	August 2019 – August 2021
The Ohio State University	Columbus, OH

GRANTS & PROPOSALS

URSULA - Uniform Refinement of Stellar Uncertainties Linked to Ariel	2025–2027
\$190,970 <i>NASA Ariel Preparatory Science</i>	

HONORS, AWARDS, & FELLOWSHIPS

NASA Hubble/Sagan Postdoctoral Fellowship (\$435k)	January 2024
Carnegie Postdoctoral Fellowship (\$290k)	January 2024
NSF Astronomy and Astrophysics Postdoctoral Fellowship (declined)	January 2024

Stanford Science Fellowship (declined)	January 2024
STSci Lasker Prize Fellowship (declined)	January 2024
Presidential Fellowship (declined)	January 2024
IGEN Travel Grant (\$1000)	November 2023
Black In Astro Travel Grant (\$500)	September 2023
Army Commendation Medal	September 2023
3rd Black Space Week Graduate Research Showcase (\$500)	June 2023
Army Achievement Medal	March 2023
Geochemical Society Travel Grant (\$2000)	March 2023
Beth Brown Memorial Poster Award (\$1000)	November 2022
2 nd Place Black in Physics Poster Competition (\$100)	October 2022
LSSTC Data Science Fellowship 2022 Program	July 2022
ExoExplorers 2022 Program (\$1000)	January 2022
IPAC Visiting Graduate Student Fellowship (\$20k)	January 2022
Beth Brown Memorial Award (\$1000)	November 2021
Gaudi-Stanek Award (\$2000)	August 2021
NSF Graduate Research Fellowship(\$105k)	March 2021
Two Sigma PhD Research Grant (\$2000)	March 2021
Two Sigma Diversity Fellowship Finalist	March 2021
Dean's Distinguished Graduate Fellowship (\$90k)	May 2019
National Defense Committee Medal	May 2019
James F. Towers Scholarship (\$2000)	August 2018
Lawrence Livermore National Laboratory, Deputy Director's coin	August 2018
Segal Americorps Educational Award (\$2500)	June 2018
The Armed Forces Communications and Electronics Association, Honor Award	May 2018
Army ROTC Scholarship (\$75K)	September 2016
Hope Scholarship (\$48K)	August 2014

INVITED TALKS & COLLOQUIA

Naval Research Laboratory, Astronomy Seminar Washington, DC	September 2025
Carnegie Earth and Planets Laboratory, General Seminar Washington, DC	September 2025
California Institute of Technology, Tea Talk Pasadena, CA	March 2025
Harvard Center for Astrophysics, Lunch Talk Boston, MA	December 2024
Carnegie Observatories Pasadena, CA	December 2023
Penn State University, Center for Exoplanets and Habitable Worlds State College, PA	October 2023
Carnegie Earth & Planets Laboratory, Astronomy Seminar Washington, DC	November 2023
NASA Goddard, Exoplanet Seminar Series Baltimore, MD	October 2023
ExoPAG, JPL Exoplanet Lecture Series Virtual	April 2023
University of Michigan, Colloquium Ann Arbor, MI	March 2023
ExoPAG, ExoExplorer Science Series Virtual	May 2022
Two Sigma, Finalist Reception Virtual	February 2021

CONTRIBUTED TALKS & POSTERS*

NHFP Symposium 2025 Baltimore, MD	October 2025
American Astronomical Society, 246th Meeting Anchorage, AK	June 2025
Towards Other Earths III Porto, Portugal	July 2023
Goldschmidt 2023 Lyon, France	July 2023
American Astronomical Society, 241st Meeting Seattle, WA	January 2023
Great Lakes Exoplanet Area Meeting 2022 Columbus, OH	November 2022
*National Society of Black Physicist 2022 Charlottesville, VA	November 2022
Greater IPAC Science Symposium, 22nd Meeting Pasadena, CA	August 2022
American Astronomical Society, 240th Meeting Pasadena, CA	June 2022
Exoplanets IV Conference Las Vegas, NV	May 2022
Great Lakes Exoplanet Area Meeting 2021 Ann Arbor, MI	November 2021
National Society of Black Physicist 2021 Virtual due to COVID-19	November 2021
Sagan Exoplanet Workshop 2021 Virtual due to COVID-19	July 2021
*Emerging Researchers in Exoplanet Science 2021 Virtual due to COVID-19	May 2021
*Space Telescope Science Institute, 2021 Spring Symposium Virtual due to COVID-19	April 2021
American Astronomical Society, 237th Meeting Virtual due to COVID-19	January 2021
Lawrence Livermore National Laboratory, 2018 Summer Symposium Livermore, CA	August 2018

OBSERVING EXPERIENCE

IRFT, SpeX, Maunakea Observatories, (Traditional Observing), 2 nights	Co-I
Magellan, MIKE, Las Campanas Observatory, (Traditional Observing), 3 nights	PI
LBT, MODS/LBC, Mount Graham International Observatory, (Queue Observing), 5 nights	grad student

ACADEMIC SERVICE

Co-Chair, ExoPAG, Exoplanet Demographics Special Interest Group (SIG2)	2025-Present
Committee Member, ExoPAG, Exoplanet Demographics Special Interest Group (SIG2)	2023-2025
Undergraduate Research Showcase Judge, Black Space Week	2023
Chambliss Judge, American Astronomical Society 241st Meeting	2023
Reviewer, NASA Astrophysics Review Panel	2022

ADVISING & MENTORING

Ashika Capirala, Purdue University, Graduate	2025-present
Bryan Tejano, Georgia Institute of Technology, Undergraduate	2025-present
Brendan Kirsh, The Ohio State University, Undergraduate	2023-2024
Hannah Eggenschwiler, The Ohio State University, Undergraduate	2021-2022
Monica Dahm, The Ohio State University, Undergraduate	2020-2021
Noah Weinstein, SciAccess Zenith Mentorship Program, Middle School	2020-2021

EMPLOYMENT

- Commander** | *U.S. Army* May 2019 – Present
- Manages ~ 100 Soldier and medical assets of the 676th Ground Ambulance Company
 - Responsible for planning and scheduling all training to maintain medical function
 - Responsible for ~24 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

ADDITIONAL RESEARCH EXPERIENCE

- Student Researcher** May 2018–August 2019
Lawrence Livermore National Laboratory Livermore, CA
- Student Research Intern** January 2018–May 2018
Georgia Tech Research Institute Atlanta, GA
- Research and Development Intern** January 2015– May 2015
Mohawk Industries Lyerly, GA

INVITED OUTREACH & SERVICE TALKS

- “Community College to PhD: Supporting First-Gen Minority Students” October 2023
National Diversity in STEM Conference 2023
- “Supporting First-Gen Minority Students at all Stages” March 2023
University of Michigan, Department of Astronomy, Conversations on Inclusion and Equity
- “The Flooding Pipeline: DEI begins before University” January 2023
AAS 241, ExoExplorers Special Session
- “Exoplanets: Beyond the Solar System” January 2023
Open Science Talk Series
- “Exoplanets and the Search for Life” October 2022
Friends of Ohio State Astronomy & Astrophysics

SELECT OUTREACH & SERVICE

- Panelist** | LUMA September 2025
Served as a Panelist for the Postdoctoral Fellowship Panel as part of the League of Underrepresented Minoritized Astronomers
- Administrator** | Astro [Sound] Bites Podcast July 2024 – present
The official audio spinoff of the Astrobites blog. Three graduate students discuss recently published astronomy research results and life in academia. Episodes released bi-weekly
- Advisory Board Member** | Be Wise August 2023–August 2025
Developed mentorship and science programs for K-12 students living in under-resourced communities
- Panelist** | GRAD-MAP January 2024
Served as a Panelist for non-traditional student as part of Graduate Resources Advancing Diversity with Maryland Astronomy and Physics (GRAD-MAP)
- Co-Host** | Astro [Sound] Bites Podcast April 2022 – July 2024
The official audio spinoff of the Astrobites blog. Three graduate students discuss recently published astronomy research results and life in academia. Episodes released bi-weekly. Recorded ~50 episodes
- Astronomy Instructor** | Be Wise Summer Camp May 2023–July 2023
Developed and taught astronomy lessons to K-6th grade students from low- income neighborhoods
- Panelist** | AAS Community College Panel October 2023
Served as a panelist for the AAS panel on how to support community college students
- Panelist** | NSF GRFP Panel June 2023
Served as a panelist for the Emergent Materials REU Program workshop on NSF GRFP
- Panelist** | AAS 241 Workshop: How To Give Great Presentations January 2023
Served as a panelist for the AAS 241 workshop on “A Scientist’s Guide to Effective Communication”
- Panelist** | Monthly Movie Nights - Science Fiction vs Science Fact November 2022
Served as a panelist for the Q&A for the movie “Space Balls”
- Guest Host** | OutSciders Classroom September 2022
OutSciders is a web-based video series that teaches students science and environmental stewardship through our National Parks. Guest Hosted 2 episodes
- Academic Facilitator** | URSA Program March 2021 – September 2022
Creates Astronomy and Physics Curriculum and teaches incoming undergraduate students from under-represented groups
- Interviewee** | Astronomy in Color February 2022
Interviewed for Black History Month sharing my perspective as a black woman in astronomy ([Article](#))
- Mentor** | Polaris Mentorship Program August 2020 – May 2022
Provides mentorship to under-represented undergraduates in Physics and Astronomy
- Invited Speaker** | NPR-The Short Wave podcast August 2021
Discussed the constellation Canis Major, Sirius, and the summer night sky
- Graduate Representative** | AIP TEAM-UP Workshop December 2020 – January 2022

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

Mentor | *SciAccess Zenith Mentorship Program* February 2021 – April 2021

Provides mentorship for blind and visually impaired high-school students that are interested in 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”

Volunteer Coordinator | *Jumpstart* August 2017 – May 2019

Recruited, managed, and trained 190 recruited volunteers to serve 3 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

MEDIA COVERAGE

The Ohio State University News September 2024
Formation of super-Earths proven limited near metal-poor stars

The Ohio State University News September 2023
Study sheds new light on strange lava worlds

COMPUTATIONAL SKILLS

Python, MATLAB, HTML/CSS, L^AT_EX

SCHOLARLY MEMBERSHIPS

American Astronomical Society Full Member

National Society of Black Physicists Full Member

Phi Theta Kappa Member