

Galen Bergsten | CV

PhD Student | gbergsten@arizona.edu
Lunar and Planetary Laboratory, University of Arizona

Education

- Lunar and Planetary Laboratory, University of Arizona** Expected 2025
PhD in Planetary Sciences, Minor in Astrobiology (Thesis Advisor: Dr. Ilaria Pascucci)
- University of Utah** 2020
Honors BS in Physics, Minor in Astronomy (Thesis Advisor: Dr. Gail Zasowski)
BS in Biology, Minor in Environmental & Organismal Biology

Research & Professional Experience

- Graduate Research & Teaching Assistant**, University of Arizona 2020 - Present
Demographics of exoplanet systems and their dependence on host star properties; atmospheric evolution of small planets; the frequency of Earth-like habitable planets around Sun-like stars.
- Physics and Astronomy REU**, University of Utah Summer 2018
Spectroscopic modeling of simple stellar populations to constrain chemistry and kinematics of globular clusters.
- Undergraduate Research & Teaching Assistant**, University of Utah 2017 - 2020
Characterization of spectroscopic signatures in the interstellar medium associated with massive evolved stars; chemical enrichment via supernova remnant ejecta absorption features.

Publications

- Bergsten, G.**, Pascucci, I., Mulders, G. D. et al. 2022, AJ, 164, 190: *The Demographics of Kepler's Earths and super-Earths into the Habitable Zone*
- Fernandes, R. B., Mulders, G. D., Pascucci, I. et al. (**Bergsten, G.** 4th author) 2022, AJ, 164, 78: *pterodactyls: A Tool to Uniformly Search and Vet for Young Transiting Planets in TESS Primary Mission Photometry*
- Koskinen, T. T., Lavvas, P., Huang, C. et al. (**Bergsten, G.** 4th author) 2022, ApJ, 929 52K: *Mass loss by atmospheric escape from extremely close-in planets*
- Ashok, A., Zasowski, G., Seth, A., et al. (**Bergsten, G.** 5th author) 2021, AJ, 161, 167. *The APOGEE Library of Infrared SSP Templates (A-LIST): High-resolution Simple Stellar Population Spectral Models in the H Band*

Talks and Posters

- Jet Propulsion Laboratory Exoplanet Journal Club (Online) October 2022
The Demographics of Kepler's Earths and super-Earths into the Habitable Zone.
- Lunar and Planetary Laboratory Conference (Invited Talk; In-Person) August 2022
There's No Place Like Home: Exoplanets and Accessibility in a Local Context.
- SIG2 Monthly Telecon (Online) May 2022
The Demographics of Kepler's Earths and super-Earths into the Habitable Zone.
- Exoplanets IV (Poster; In-Person) May 2022
The Demographics of Kepler's Earths and super-Earths into the Habitable Zone.

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| 5. Origins Seminar Series (Seminar; In-Person) | <i>May 2022</i> |
| <i>The Long and Short of It: the Population of Earths, from Short Periods to the Habitable Zone.</i> | |
| 6. Alien Earths All-Hands Meeting (Contributed Talk; Hybrid) | <i>January 2022</i> |
| <i>The Population of super-Earths into the Habitable Zone.</i> | |
| 7. PLATO Conference 2021 (Contributed Talk; Online) | <i>October 2021</i> |
| <i>Kepler's Small Planets and their Dependence on Stellar Mass.</i> | |
| 8. Lunar and Planetary Laboratory Conference (Contributed Talk; In-Person) | <i>August 2021</i> |
| <i>Kepler's Small Planets and their Evolutionary Dependence on Stellar Mass.</i> | |
| 9. TESS Science Conference 2 (Poster; Online) | <i>August 2021</i> |
| <i>Demographics of Small Kepler Planets and their Dependence on Stellar Mass</i> | |
| 10. Sagan Workshop (Poster; Online) | <i>July 2021</i> |
| <i>Stellar Mass Dependence in the Abundance of Small Kepler Planets.</i> | |
| 11. AAS Meeting #233 (Poster; In-Person) | <i>January 2019</i> |
| <i>An APOGEE-2 Survey of the Stellar Populations in the M31 Group</i> | |

Awards & Achievements

Honors

Best Graduate Student Talk Award (Lunar and Planetary Laboratory Conference)	<i>2021</i>
BS in Physics and Astronomy (University of Utah), Magna cum Laude with Honors	<i>2020</i>
Undergraduate Research Scholar	<i>2020</i>
Crocker Science House Scholar	<i>2017</i>

Scholarships

Thomas J. Parmley Scholarship for Outstanding Students in Physics and Astronomy	<i>2019</i>
Walter W. Wada Endowed Scholarship in Physics and Astronomy	<i>2018</i>
Utah Student Success Scholarship	<i>2016, 2017</i>
University of Utah President's Scholarship	<i>2016</i>

Leadership in Inclusion, Diversity, Equity, & Accessibility

Department Leadership

Journal Club Coordinator, Lunar and Planetary Laboratory	<i>2022 - Present</i>
DEI Committee, Lunar and Planetary Laboratory	<i>2022 - Present</i>
Department Life Committee, Lunar and Planetary Laboratory	<i>2022 - Present</i>
Graduate Student Colloquium Organizer, Lunar and Planetary Laboratory	<i>2022 - Present</i>
Undergraduate Women in Physics & Astronomy, University of Utah	<i>2018 - 2020</i>

University Leadership

Inclusive Leadership Institute, University of Arizona	<i>2022 - Present</i>
Culturally Inclusive Planetary Engagement Workshop, Planetary ReaCH Program	<i>2022</i>

Outreach

The Art of Planetary Science Volunteer	<i>2020 - Present</i>
University of Utah Observatory Public Viewing Nights Volunteer	<i>2017 - 2020</i>
Outreach Coordinator for Salt Lake City K-12 Public Schools	<i>2016 - 2020</i>

Professional Activities

Science Committees and Affiliations

Science Interest Group 2, <i>Exoplanet Demographics</i>	2022 - Present
NASA's Nexus for Exoplanet System Science Alien Earths Team Member	2021 - Present
Study Analysis Group 22, <i>Investigating an Exoplanet Target Star Archive</i>	2020 - 2021
American Astronomical Society	2018 - Present
Society of Physics Students (Vice President), University of Utah Chapter	2016 - 2020

Teaching Assistantships

Building a Habitable World - Instructor: Dr. Mark Marley (LPL)	2022
Introductory Mechanics - Instructor: Mr. Adam Beehler (Utah)	2019
Foundations of Astronomy - Instructor: Dr. Gail Zasowski (Utah)	2018, 2019

Mentorship

Colin Boecker-Grieme , Paradise Valley High School	2022 - Present
Project: <i>Habitability and Terrestrial Analogs of Europa's Subsurface Ocean</i>	
Abhinav Vatsa , University of Arizona (Undergraduate)	2022
Project: <i>Searching for Young Habitable Planets around Low-Mass M Dwarfs with TESS</i>	
Abhinav Vishnuvajhala , BASIS Phoenix High School	2022
Project: <i>Indicators of Uninhabitable Worlds with Machine Learning</i>	