Casey Brinkman

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Education

University of Hawai'i at Mānoa Institute for Astronomy — **Honolulu, HI**
Ph.D. in Astronomy, M.S. in Astronomy — *2020 – 2024*

University of Vermont — **Burlington, VT**
Bachelor of Science in Physics — *2013 – 2017*
Graduated with Honors, Minors in Mathematics and Astronomy

Relevant Employment

Berkeley SETI Research Center, University of California at Berkeley — **Berkeley, CA**
Intern/Junior Specialist — *2017-2018*

Awards and Honors

Graduate: NSF Graduate Research Fellowship Recipient — *April 2020-Present*
SETI Forward Prize (at Drake Awards) — *Spring 2019*
Rodger Doxsey Travel Prize — *Fall 2023*
Undergraduate: David Juenker Prize for Academic Excellence in Physics — *Spring 2017*
College of Arts and Sciences Honors — *Spring 2017*

Publications

6 First Author | 29 Contributing Author (listed at end of CV)| >1000 Total Citations | h-index 12 | ADS Library

- "The Compositions of Rocky Planets in Close-In Orbits Tend to be Earth-like", **Casey Brinkman**, Lauren Weiss, Daniel Huber et al., Submitted 2024
- "Revisiting the Relationship Between Rocky Exoplanet and Stellar Compositions: Reduced Evidence for a Super-Mercury Population", **Casey Brinkman**, Alex Polanski, Daniel Huber et al. Accepted to AJ October 1 2024
- "TOI-561 b: A Low Density Ultra-Short Period "Rocky" Planet around a Metal-Poor Star", **Casey Brinkman**, Lauren M Weiss, Fei Dai et al. 2023, AJ 165, 3
- "Kepler-102: Masses and Compositions for a Super-Earth and Sub-Neptune Orbiting an Active Star", **Casey Brinkman**, James Cadman, Lauren Weiss et al., 2023, AJ 165, 2.
- "Investigation of the mode-switching phenomenon in pulsar B0329+54 through polarimetric analysis", **Casey Brinkman**, Dipanjan Mitra, and Joanna Rankin 2019, MNRAS 484, 2.
- "No Pulsar Left Behind: Timing, pulse-sequence polarimetry and emission morphology for 12 pulsars"**Casey Brinkman**, Paulo Freire, Joanna Rankin, and Kevin Stovall 2017, MNRAS 474, 2

Selected Conferences and Presentations

Talks: Extreme Solar Systems V, Christchurch — *March 2024*
American Astronomical Society Meeting, New Orleans — *January 2024*
Rocky Worlds II, Oxford — *July 2022*
Keck Science Meeting, Pasadena — *September 2024*
Keck Science Meeting, Virtual — *September 2021*
Invited Seminar, Harvard-Smithsonian Center for Astrophysics — *Sept 2024*
Invited Seminar, Trottier Institute for Research on Exoplanets — *Sept 2024*
Invited Seminar, University of Notre Dame Department of Physics — *January 2022*
Posters: TESS/Kepler Astroseismic Consortium, Honolulu — *July 2023*
Protostars and Planets VII, Kyoto — *April 2023*

Observing Experience and Time Allocation

Keck Observatory: 9 nights awarded, 38 nights observing experience — *Fall 2020-Fall 2023*
Gemini North Observatory: 9 nights awarded — *Fall 2020-Fall 2023*
Canada France Hawaii Telescope: 5 hours awarded — *Fall 2020-Fall 2023*
Green Bank Observatory: 50 hours observing experience — *Summer 2017-Summer 2018*
Parkes Radio Telescope: 140 hours observing experience — *Summer 2017-Summer 2018*
Arecibo Observatory: 70 hours observing experience — *Spring 2014-Spring2017*

Teaching

Lab: Primary Instructor, Introductory Astronomy	*Fall 2019 - Spring 2020*
Teaching Assistant, Introductory Astronomy	*Fall 2018 - Spring 2019*
Class: Teaching Assistant, Introductory and Upper Level Astronomy	*Fall 2018 - Spring 2020*
Undergraduate: Teaching Assistant and Primary Lab Instructor	*Fall 2015 – Spring 2017*
Recitation Leader and Grader	*Fall 2015 – Spring 2017*

Service and Outreach

Graduate Student Representative	*Fall 2021-Fall 2022*
EquiTea Founder and Member	*Fall 2020-Present*
Academic Labor United Organizing Chair	*Fall 2021-Spring 2023*
Graduate Student Organization, Department Representative	*Fall 2019-Fall 2020*
Maunakea Scholars Program Mentor	*Fall 2018 – Spring 2024*
UH Institute for Astronomy Outreach, 30+ Events	*Autumn 2018 - Summer 2024*

Professional References

Dr. Daniel Huber: University of Hawaii at Manoa | Primary Dissertation Advisor | huberd@hawaii.edu

Dr. Lauren Weiss: University of Notre Dame | Co-Dissertation Advisor | lmweiss4@nd.edu

Dr. Diana Valencia: University of Toronto | Research Collaborator | diana.valencia@utoronto.edu

Additional Papers

- "TESS Giants Transiting Giants. VI. Newly Discovered Hot Jupiters Provide Evidence for Efficient Obliquity Damping after the Main Sequence", Saunders, Grunblatt, Chontos et al. including Brinkman, AJ, 168, 2 (2024)
- "An Earth-sized Planet on the Verge of Tidal Disruption", Dai, Howard, Halverson et al. including Brinkman, AJ 2024
- "The TESS-Keck Survey XX: 15 New TESS Planets and a Uniform RV Analysis of all Survey Targets", Polanski, Lubin, Beard et al. including Brinkman, AJ 2024
- "The TESS-Keck Survey. XXII. A sub-Neptune Orbiting TOI-1437", Pidhorodetska, Gilbert, Kane et al. including Brinkman, AJ 2024
- "Planet Hunters TESS V: a planetary system around a binary star, including a mini-Neptune in the habitable zone", Eisner, Grunblatt, Barragan et al. including Brinkman, AJ 2024
- "A Tale of Two Peas-In-A-Pod: The Kepler-323 and Kepler-104 Systems", Thomas, Weiss, Isaacson et al. including Brinkman, AJ 2024
- "The TESS-Keck Survey. XII. A Dense 1.8 R Ultra-Short-Period Planet Possibly Clinging to a High-Mean-Molecular-Weight Atmosphere After the First Gyr", Rubenzahl, Dai, Howard et al. including Brinkman, AJ 2024
- "Giant Outer Transiting Exoplanet Mass (GOT 'EM) Survey. IV. Long-term Doppler Spectroscopy for 11 Stars Thought to Host Cool Giant Exoplanets", Dalba, Kane, Isaacson et al. including Brinkman, AJ 2024
- "The TESS-Keck Survey XVII: Precise Mass Measurements in a Young, High Multiplicity Transiting Planet System using Radial Velocities and Transit Timing Variations", Beard, Robertson, Dai et al. including Brinkman, AJ 2023
- "Investigating the Atmospheric Mass Loss of the Kepler-105 Planets Straddling the Radius Gap", Householder, Weiss, Owen et al. including Brinkman, AJ 2023
- "The TESS-Keck Survey. XVI. Mass Measurements for 12 Planets in Eight Systems", Murphy, Batalha, Scarsdale et al. including Brinkman, AJ 2023
- "A close-in giant planet escapes engulfment by its star", Hon, Huber, Rui et al. including Brinkman, Nature 2023
- "The TESS-Keck Survey. XV. Precise Properties of 108 TESS Planets and Their Host Stars", MacDougall, Petigura, Gillbert et al. including Brinkman, AJ 2023
- "The Kepler Giant Planet Search. I: A Decade of Kepler Planet-host Radial Velocities from W. M. Keck Observatory", Weiss, Isaacson, Howard et al. including Brinkman, AJ 2023
- "TOI-1136 is a Young, Coplanar, Aligned Planetary System in a Pristine Resonant Chain", Dai, Matsuda, Beard et al. including Brinkman, AJ 2022
- "A Tendency Toward Alignment in Single-Star Warm Jupiter Systems", Rice, Wang, Wang et al. including Brinkman, AJ 2022
- "The TESS-Keck Survey. XI. Mass Measurements for Four Transiting sub-Neptunes orbiting K dwarf TOI-1246", Turtelboom, Weiss, Dressing et al. including Brinkman, AJ 2022
- "The TESS-Keck Survey. VIII. Confirmation of a Transiting Giant Planet on an Eccentric 261 day Orbit with the Automated Planet Finder Telescope", Dalba, Kane, Dragomir et al. including Brinkman, AJ 2022
- "TESS Giants Transiting Giants II: The hottest Jupiters orbiting evolved stars", Grunblatt, Saunders, Sun et al. including Brinkman, AJ 2022
- "Stellar Obliquities in Long-period Exoplanet Systems (SOLES) I: The Spin-Orbit Alignment of K2-140 b", Rice, Wang, Howard et al. including Brinkman, AJ 2021
- "TKS X: Confirmation of TOI-1444b and a Comparative Analysis of the Ultra-short-period Planets with Hot Neptunes", Dai, Howard, Batalha et al. including Brinkman, AJ 2021
- "An extreme magneto-ionic environment associated with the fast radio burst source FRB 121102", Michilli, Seymoure, Hessels et al. including Brinkman, Nature 2018

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