

Jon K. ZINK, Ph.D.

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CURRENT TITLE: NASA HUBBLE POSTDOCTORAL FELLOW, CALTECH

PERSONAL DATA

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EDUCATION

- MAY 2021 Ph.D. in ASTRONOMY & ASTROPHYSICS, **University of California**, Los Angeles
Advisor: Prof. Brad Hansen
- MAY 2016 M.S. in PHYSICS, **California State University**, Northridge
Advisor: Prof. Damian Christian
- JUNE 2014 B.S. in ASTROPHYSICS, **University of California**, Los Angeles

TEACHING EXPERIENCE

- 2016 - 2020: Teaching Assistant **University of California**, Los Angeles
Astro 140: Cosmology
Astro 115: Statistical Mechanics
Astro 5: Life in the Universe
Physics 6A: Physics for Life Science
Astro 117: Radiation and Fluids
Astro 127: Stellar Atmospheres
Astro 4: Black Holes and Cosmic Catastrophes
And Many Others
- 2014 - 2016: Teaching Associate **California State University**, Northridge
Physics 100AL: Electricity and Magnetism Lab for Life Science
Physics 220BL: Electricity and Magnetism Lab
Astro 152L: Observational Astronomy

SCHOLARSHIPS AND AWARDS

- SEPT 2021 NASA Hubble/Sagan Postdoctoral Fellowship
- JUNE 2020 UCLA Dissertation Fellowship
- DECEMBER 2019 UCLA Astronomy Outstanding TA Award
- JANUARY 2019 IPAC Visiting Graduate Fellowship
- DECEMBER 2018 UCLA Astronomy Outstanding TA Award
- DECEMBER 2017 UCLA Astronomy Outstanding TA Award
- MAY 2016 CSUN Outstanding Graduate Award
- MAY 2015 CSUN Outstanding Graduate Student Scholarship

PRESS

- 10/11/23 Astrobites - [Where do Hot-Jupiters come from? RV population statistics suggests planet-planet interactions](#)
- 08/22/23 NASA Discovery Alert - [On Our Galaxy's Outskirts, a Poverty of Planets](#)
- 07/26/23 Extrasolar Times - [A galactic imprint on exoplanet systems](#)
- 11/25/21 Newsweek - [Astronomers Find Hundreds of New Worlds, Including Unusually Close Saturn-Sized Gas Giants](#)
- 09/16/21 Physics Today - [Plucking exoplanets out of noisy Kepler data](#)
- 06/11/21 Forbes Article - [We've Found 372 New Alien Planets Using A Long-Dead Telescope Say Scientists](#)
- 12/08/20 SyFi Wire Article - [Why Jupiter Could be the Final Girl of the Solar System - Until a Star Kicks it Out](#)
- 11/29/20 ScienceAlert Feature - [Our Solar System Is Going to Totally Disintegrate Sooner Than We Thought](#)
- 11/25/20 AAS Nova Research Feature - [The Eventual Fate of The Solar System](#)
- 11/24/20 Bad Astronomy Feature - [How our Galaxy Will Kill our Solar System in a Trillion Years, Planet by Planet](#)
- 10/29/20 Nature Astronomy Research Highlight - [The End of It All](#)

PUBLICATIONS

- Jessie Christiansen, **Jon Zink**, Kevin Hardegree-Ullman, et al. 2023 [AJ](#), **166**, **6**, **248**, *Scaling K2 VII: Evidence for a high occurrence rate of hot sub-Neptunes at intermediate ages*
- Jon Zink** and Andrew Howard 2023 [ApJL](#), **956** **L29**, *Hot Jupiters Have Giant Companions: Evidence for Coplanar High-Eccentricity Migration*
- Taiki Kagitani, ... , **Jon Zink**, et al. 2023 [PASJ](#), **75**, **4**, *The mass of TOI-519 b: A close-in giant planet transiting a metal-rich mid-M dwarf*
- Sarah Blunt, ... , **Jon Zink**, et al. 2023 [AJ](#), **166**, **2**, **62**, *Overfitting Affects the Reliability of Radial Velocity Mass Estimates of the V1298 Tau Planets*
- Jon Zink**, Kevin Hardegree-Ullman, Jessie Christiansen, et al. 2023 [AJ](#), **165**, **6**, **262**, *Scaling K2. VI. Reduced Small Planet Occurrence in High Galactic Amplitude Stars*
- Rachel Fernandes, ... , **Jon Zink**, et al. 2022 [AJ](#), **164**, **3**, **78**, *pterodactyls: A Tool to Uniformly Search and Vet for Young Transiting Planets in TESS Primary Mission Photometry*
- Sarah Millholland, Matthias He, and **Jon Zink** 2022, [AJ](#), **164**, **2**, **72**, *Edge-of-the-Multis: Evidence for a Transition in the Outer Architectures of Compact Multi-Planet Systems*
- Jessie Christiansen, Sakhee Bhure, **Jon Zink**, et al. 2022, [AJ](#), **163**, **6**, **244**, *Scaling K2. V. Statistical Validation of 60 New Exoplanets From K2 Campaigns 2-18*
- Jon Zink**, Kevin Hardegree-Ullman, Jessie Christiansen, et al. 2021, [AJ](#), **162**, **6**, **259**, *Scaling K2. IV. A Uniform Planet Sample for Campaigns 1-8 and 10-18*
- Jon Zink**, Konstantin Batygin, and Fred Adams 2020, [AJ](#), **160**, **5**, **232**, *The Great Inequality and the Dynamical Disintegration of the Outer Solar System*
- Jon Zink**, Kevin Hardegree-Ullman, Jessie Christiansen, et al. 2020, [AJ](#), **160**, **2**, **94**, *Scaling K2. III. Comparable Planet Occurrence in the FGK Samples of Campaign 5 and Kepler*
- Jon Zink**, Kevin Hardegree-Ullman, Jessie Christiansen, et al. 2020, [AJ](#), **159**, **4**, **154**, *Scaling K2. II. Assembly of a Fully Automated C5 Planet Candidate Catalog Using EDI-Vetter*
- Kevin Hardegree-Ullman, **Jon Zink**, Jessie Christiansen, et al. 2020, [ApJS](#), **247**, **1**, **28**, *Scaling K2. I. Revised Parameters for 222,088 K2 Stars and a K2 Planet Radius Valley at 1.9 R_{\oplus}*
- Jon Zink** and Bradley Hansen 2019, [MNRAS](#), **487**, **246–252**, *Accounting for Multiplicity in Calculating Eta Earth*
- Jon Zink**, Kevin Hardegree-Ullman, Jessie Christiansen, et al. 2019, [RNAAS](#), **3**, **2**, **43**, *Catalog of New K2 Exoplanet Candidates from Citizen Scientists*
- Jon Zink**, Jessie Christiansen, and Bradley Hansen 2019, [MNRAS](#), **483**, **4479–4494**, *Accounting for Incompleteness due to Transit Multiplicity in Kepler Occurrence Rates*
- Bradley Hansen and **Jon Zink** 2015, [MNRAS](#), **450**, **4505–4520**, *On the Potentially Dramatic History of the Super-Earth Rho 55 Cancri e*

SUCCESSFUL PROPOSALS AS PI

- 2024A:** Keck, KPF (2 half nights), *Kepler-126's Anomalous Orbital Spacing*
- 2023B:** Keck, KPF (2 half nights), *Kepler-139's Orbital Gap*
- 2022B:** Keck, HIRESr (4 half nights), *Disentangling Thick and Thin Disk Planet Hosts*
- 2022A:** Keck, HIRESr (2 half nights), *Demystifying Planet Demographic Features with Precise K2 Stellar Parameters*
- 2021-2024:** NASA Hubble/Sagan Fellowship (\$300K), *Expanding Exoplanet Demographics to Identify Key Components of Planet Formation*
- 2019B:** Lick, Shane 120-inch (5 nights), *The Occurrence of Binary Contamination in the High Galactic Latitude K2 Fields*
- 2019B, 2020B:** Lick, Nickel 1-meter (2 nights), *The Astronomy Live! Summer Observing Workshop*

SUCCESSFUL PROPOSALS AS CO-I

- 2020-2022:** Astrophysics Data Analysis Program (\$190K), *Multiplicity Completeness in K2 planet catalogs* (18-2ADAP18-0060)
- 2020B:** Keck, IRTF (5 nights), *Ironing out an Optical M Dwarf Metallicity Calibration with Infrared Spectra*

DEVELOPED SOFTWARE

EDI-Vetter Unplugged: www.github.com/jonzink/EDI_Vetter_unplugged

a user-friendly pip-installable Transiting Exoplanet Signal Vetting Code (available for Python)

EDI-Vetter: www.github.com/jonzink/EDI-Vetter

a Transiting Exoplanet Signal Vetting Code (available for Python)

ExoMult: www.github.com/jonzink/ExoMult

a Forward Modeling Algorithm for Exoplanet Population Synthesis (available for R and Python)

INVITED TALKS

UCLA, December 2023
UC Riverside, October 2023
Kansas University, October 2023
UC Irvine, October 2023
DPS Press Panel, September 2023
MIT, September 2023
UC Davis, May 2022
NASA Goddard, May 2022
Yale, March 2022
Princeton, March 2022
Caltech, November 2021
AAS Press Panel, June 2021
Carnegie Observatories, March 2021
UC San Diego, February 2021
NASA Jet Propulsion Laboratory, December 2020
University of Arizona (Origins Seminar), November 2020
Columbia, November 2020
UC Irvine, November 2020
Harvard (CFA), November 2020
University of Michigan, October 2020
University of Washington, October 2020
University of Chicago, October 2020
UC Santa Cruz, September 2020
The University of Ohio, September 2020
Penn State University, September 2020
Harvard, August 2020
Caltech, May 2020
UCLA, May 2020

CONTRIBUTED TALKS

ExSoCal, December, 2023
DPS, October, 2023
Hubble Symposium, September 2023
Hubble Symposium, September 2022
Hubble Symposium, September 2021
AAS, January 2021
Exoplanet Demographics I, November 2020
ExSoCal, September 2020
Bay Area Exoplanet Meeting, September 2020
Exoplanets III, July 2020
AAS, January 2020
Kepler SciCon, March 2019
ExSoCal, September 2018
UCLA, January 2018
ExSoCal: An Exoplanet Orbital Interaction, September 2015

PROFESSIONAL SERVICE

- Referee for Astronomical Journal, Astronomy & Astrophysics, and Nature Astronomy
- 2021 UCLA Astronomy and Astrophysics Graduate Admissions Committee Member
- Spring 2021 AAS Press Panel Presenter
- Fall 2023 DPS Press Panel Presenter
- NASA XRP Review Panel Chair