SPENCER HURT

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EDUCATION

University of Oregon September 2022 – Present
Ph.D. Candidate in Earth Science (Geophysics, Volcanology, and Planetary Science)

- Advisor: Dr. Josef Dufek

University of Colorado, Boulder May 2020 – May 2022
B.A. in Astronomy and Astrophysics

- *Summa Cum Laude*, 3.99 GPA
- Thesis Title: 'Measuring the Alignment Between Resolved Debris Disks and Their Host Stars'
- Advisor: Dr. Meredith MacGregor

Harvard College August 2018 – May 2019

RESEARCH POSITIONS

Center for Astrophysics and Space Astronomy June 2020 – May 2022
Undergraduate Researcher

Collaborated with Dr. Meredith MacGregor to model images of circumstellar debris disks and place constraints on the presence of nearby substellar companions.

California Planet Search October 2019 – December 2021
Undergraduate Researcher

Worked with Dr. Benjamin Fulton to maintain and add functionality to `RadVel`, a Python package used to model radial-velocity time series. Applied this work to search for low-mass planets around nearby stars.

University of Hawaii Institute for Astronomy May 2021 – August 2021
Undergraduate Researcher

Worked with Dr. Michael Liu and Dr. Zhoujian Zhang to test model atmospheres of M and L spectral type ultracool dwarfs, searching for systematic behavior in these models. Funded by the NSF REU program.

Harvard-Smithsonian Center for Astrophysics January 2019 – August 2019
Undergraduate Researcher

Helped identify transiting exoplanet candidates with the TESS Follow-up Observing Program. Led a radial-velocity search for planets around the bright, nearby star Vega with Dr. David Latham and Dr. Sam Quinn.

TEACHING AND EDUCATIONAL POSITIONS

CU Boulder Department of Physics August 2021 – December 2021
Learning Assistant *Boulder, CO*

Supported student learning in PHYS 2130 (Modern Physics, an introduction to quantum mechanics and special relativity) by facilitating discussions, holding office hours, and providing feedback on assignments. As a part of this position, enrolled in EDUC 4610, a class focused on developing effective teaching pedagogy.

CU Boulder Department of Astrophysical and Planetary Sciences August 2021 – December 2021
Grader *Boulder, CO*

Graded and provided feedback on assignments for ASTR 3710 (Planet Formation and Dynamics).

OUTREACH AND VOLUNTEER ACTIVITIES

Grand Mesa Observatory August 2019 – August 2021
Volunteer *Grand Junction, CO*

Organized stargazing nights and public talks. Developed outreach programs for local schools, including observing and data analysis curricula for high school students. Helped maintain and operate telescopes.

AWARDS AND FELLOWSHIPS

- Theodore Snow Scholarship (2022, *CU Boulder APS Department*)
- Lokey Graduate Science Award (2022, *University of Oregon*)
- National Science Foundation Graduate Research Fellowship (2022)
- Johnston Graduate Scholarship (2022, *University of Oregon Department of Earth Sciences*)
- Churchill Scholarship (2022, *Declined*)
- Astronaut Scholarship (2021)
- Barry Goldwater Scholarship (2021)
- Program for Research in Science and Engineering Fellowship (2019, *Harvard College*)
- Origins of Life Fellowship (2019, *Harvard Origins of Life Initiatve, Declined*)
- Colorado Association for Gifted and Talented Youth Impact Award (2019)

PUBLICATIONS

8. *Uniform Forward-modeling Analysis of Ultracool Dwarfs. III. Benchmark and Candidate Late-M and L Dwarfs in Young Moving Groups and the Pleiades*
   S. A. Hurt, M. C. Liu, Z. Zhang
   In Preparation

7. *Evidence for Misalignment Between Debris Disks and Their Host Stars*
   S. A. Hurt, M. A. MacGregor
   Under Review

6. *The Hawaii Infrared Parallax Program. VI. The Fundamental Properties of 1000+ Ultracool Dwarfs Using Optical to Mid-infrared Spectral Energy Distributions*
   A. Sanghi, M. C. Liu, W. B. Best, T. J. Dupuy, R. J. Siverd, Z. Zhang, **S. A. Hurt**, E. A. Magnier, K. M. Aller, N. R. Deacon
   In Preparation

5. *The Peculiar Appearance of the HD 53143 Scattered Light Debris Disk*
   C. C. Stark, B. Ren, M. A. MacGregor, W. S. Howard, **S. A. Hurt**, A. J. Weinberger, G. Schneider, E. Choquet
   In Preparation

4. *Planet Search with the Keck/NIRC2 Vortex Coronagraph in M_S-band for Vega*
   B. B. Ren, N. L. Wallack, **S. A. Hurt**, D. Mawet, J. Llop-Sayson, T. Meshkat, J. Aguilar, E. Cady, E. Choquet, R. Oppenheimer, G. Ruane, G. Vasisht, M. Ygouf
   Under Review

3. *ALMA Images the Eccentric HD 53143 Debris Disk*
   M. A. MacGregor, **S. A. Hurt**, C. C. Stark, W. S. Howard, A. J. Weinberger, B. Ren, G. Schneider, E. Choquet, D. Mawet
   The Astrophysical Journal Letters, 933, 1 (doi:10.3847/2041-8213/ac7729)

2. *Confirmation of the Long-Period Planet Orbiting Gliese 411 and the Detection of a New Planet Candidate*
   S. A. Hurt, B. Fulton, H. Isaacson, L. J. Rosenthal, A. W. Howard, L. M. Weiss, E. A. Petigura
   The Astronomical Journal, 163, 5 (doi:10.3847/1538-3881/ac5c47)

1. *A Decade of Radial-Velocity Monitoring of Vega and New Limits on the Presence of Planets*
   S. A. Hurt, S. N. Quinn, D. W. Latham, A. Vanderburg, G. A. Esquerdo, M. L. Calkins, P. Berlind, R. Angus, C. A. Latham, G. Zhou
   The Astronomical Journal, 161, 4 (doi:10.3847/1538-3881/abdec8)

TALKS AND PRESENTATIONS

- Astronaut Scholar Technical Conference (August 2021)
- UHIfA NSF REU Presentations (July 2021)
- UH Summer Undergraduate Research Experience Symposium (July 2021)
- Harvard-Smithsonian Center for Astrophysics Exoplanet Presentation Lounge (February 2021)
- Transiting Exoplanet Survey Satellite (TESS) Science Team Meeting (January 2021)
- California Planet Search Group Meeting (July 2020)