

Katelyn Horstman

Pasadena, CA | (707) 536-6070 | khorstma@caltech.edu

Education:

University of California, Los Angeles (UCLA)

June 2021

Bachelor of Science in Astrophysics with Departmental Honors

California Institute of Technology (Caltech)

Expected: June 2027

Doctor of Philosophy in Astrophysics

Selected Publications:

Ruffio, J. B., **Horstman, K.**, Mawet, D., et al. (2022). Detecting exomoons from radial velocity measurements of self-luminous planets: application to observations of HR 7672 B and future prospects. *Submitted to the Astronomical Journal*.

Horstman, K., Fitzgerald, M. P., Lyke, J. E., et al. (2022). Using Non-negative Matrix Factorization to Improve Calibration of the Keck OSIRIS Integral Field Spectrograph. *Publications of the Astronomical Society of the Pacific*, 134:1036. <https://doi.org/10.1088/1538-3873/ac7905>.

Horstman, K., Shapley, A. E., Sanders, R. L., et. al. (2020). The MOSDEF Survey: Differences in SFR and Metallicity for Morphologically-Selected Mergers at $z \sim 2$. *Monthly Notices of the Royal Astronomical Society*, 501:1. <https://doi.org/10.1093/mnras/staa3502>.

Horstman, K. & Trimble, V. (2020). Correlation of Time from Submission to Acceptance of Astronomical Papers with Gender of Lead Author. *Bulletin of the AAS*, 52:2. <https://doi.org/10.3847/25c2cfcb.907653b3>.

Horstman, K. & Trimble, V. (2019) A citation history of measurements of Newton's constant of Gravity. *Scientometrics* 119:527. <https://doi.org/10.1007/s11192-019-03031-0>.

Selected Presentations:

Horstman K., Ruffio J. B., and Mawet D. The prospects of discovering exomoons: Radial velocity measurements around self-luminous planets. Powerpoint session presented at: ESO Disks and Planets; 2022 November; Garching, Germany.

Horstman K. My Journey to Graduate School. Powerpoint session presented at: FUTURE Ignited; 2022 October 8; Virtual.

Horstman K. and Fitzgerald, M.P. Using Non-negative Matrix Factorization to Improve Calibration of the Keck OSIRIS Integral Field Spectrograph. Powerpoint session presented at: 240th AAS Meeting; 2022 June 13; Pasadena, CA.

Horstman K. and Shapley A. SFR-M-Z and Merger Relationship at a Redshift of 2.2. Powerpoint session presented at: Undergraduate Research Week 2021; 2021 May 28; Los Angeles, CA.

Horstman K., Ruffio J. B., and Mawet D. Extracting Radial Velocities of Cool, Low Mass Stars Using Forward Modeling with PARVI. Oral presentation presented at: Fall Summer Undergraduate Research Fellowship Day; 2020 October 17; Pasadena, CA.

Service:

Zeitschrift für Naturforschung A.
Blind Reviewer

Los Angeles, CA
May 2019

Rotary Club Community Observatory
Docent and Telescope Operator

Cameron Park, CA
Jan 2017 - Sep 2017

- ☐ Taught public community members about astronomy and astrophysics
- ☐ Operated 17" and 14" telescopes
- ☐ Conducted constellation tours

Awards and Scholarships:

NSF Graduate Research Fellowship Honorable Mention
UCLA Clay Trust Physical Science Scholarship
Keck Institute for Space Studies (KISS) Affiliate
UCLA Clay Trust Physical Science Scholarship

March 2021
February 2020
September 2022
February 2020

Extracurriculars:

Gender Minorities in Physics, Math, and Astronomy (Board)
Women+ in Physical Sciences
American Physical Society
Society of Physics Students
Marginalized Identities in Astrophysics

Sep 2021 - Present
Sep 2017 - June 2021
Sep 2017 - June 2021
Sep 2017 - June 2021
Sep 2017 - June 2021