

PETER SMITH – CURRICULUM VITAE

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Education

2025 (expected) Ph.D., Astrophysics; Arizona State University
2020 B.S., Astronomy, Physics; University of Texas at Austin

Publications

Predictions for Secondary Eclipse Observations of TESS Discoveries with JWST, (In Prep);
Smith, P. C., Morley, C. V., Batalha, N. E.

Research

2020-present Advisor: Prof. Michael Line

Developing novel Bayesian atmospheric retrieval frameworks for high spectral resolution observations of exoplanets

Advisor: Prof. Molly Simon

Developing and evaluating a curricular model for incorporating citizen science activities in the classroom that address barriers to participation in STEM for underrepresented groups

2019-2020 Advisor: Prof. Caroline Morley

Constructing a grid of thermal emission spectra of known terrestrial exoplanets using the radiative transfer code DISORT, and simulating observations with the *James Webb Space Telescope*

Interests

Exoplanet atmospheres, Bayesian statistics, high resolution spectroscopy, radiative transfer, astronomy education, high performance computing, atmospheric modeling

Teaching and Mentoring Experience

2021 Gabriela Roig (undergraduate)

2020 Astronomy Students Association Python Workshop

Presentations, Conferences, & Invited Talks

2021 Emerging Researchers in Exoplanet Science Symposium, *Detection of a Carbon Isotope in a Hot Jupiter Using High Resolution Cross Correlation Spectroscopy*

Sundial No Jargon Conference, *Understanding the Atmospheres of Alien Worlds*

Space Telescope Science Institute Spring Symposium, *High Resolution Cross Correlation Spectroscopy Observations of a Hot Jupiter with IGRINS on Gemini South*

American Astronomical Society Winter Meeting, *Predications for Secondary Eclipse Observations of TESS Discoveries with JWST*

American Astronomical Society Winter Meeting, *High Resolution Cross Correlation Spectroscopy Observations of a Hot Jupiter with IGRINS on Gemini South*

2020 University of Texas Astronomy Department Undergraduate Research Seminar, *Predications for Secondary Eclipse Observations of TESS Discoveries with JWST*

2019 Astronomy Students Associates Undergraduate Research Month, *Detecting and Characterizing Exoplanets*

Awards and Scholarships

2020 Special Departmental Honors; University Honors

2019 John W. Cox Endowment for the Advanced Studies in Astronomy

Leadership and Service

2019-2020 Founding member; Physics, Math, and Astronomy Board for Student Advocacy

Member, Sigma Pi Sigma Physics Honor Society

2018-2020 Co-president, secretary; Astronomy Students Association