

# 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