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**Research Interests**

Hot Jupiters – formation and evolution  
Exoplanet discovery and statistics  
Architectures and dynamics of planetary systems

**Appointments**

**University of California, Los Angeles** Los Angeles, CA  
51 Pegasi b Postdoctoral Fellow 10/2025 – present  
Supervisor: Erik Petigura

**Center for Astrophysics | Harvard & Smithsonian** Cambridge, MA  
51 Pegasi b Postdoctoral Fellow 09/2023 – 09/2025  
Supervisor: Dave Charbonneau

**Education**

**Princeton University** Princeton, NJ  
Ph.D., Astrophysics; M.Sc., Astrophysics (2020) 09/2018 – 08/2023  
Thesis: *The TESS Grand Unified Hot Jupiter Survey*  
Advisor: Joshua Winn

**California Institute of Technology** Pasadena, CA  
B.S., Physics, with Minor in Geological and Planetary Sciences 09/2014 - 06/2018

**Awards**

Heising-Simons 51 Pegasi b Fellowship 2023 – 2027  
Princeton University Centennial Fellowship 2018 – 2023  
George W. Housner Prize for Academic Excellence and Original Research 2018  
Best Poster, Know Thy Star Conference 2017

**Publications** [\[ADS\]](#)

**First–Third Author** (<sup>†</sup> denotes students I have directly mentored.)

15. **Yee, S. W.**, Tamburo, P., Stefansson, G., et al. *The Polar Orbit of TOI-2374 b, a Planet in the Neptunian Ridge*. AJ, accepted (2025). [\[arXiv:2509.11565\]](#)
14. Tamburo, P., **Yee, S. W.**, García-Mejía, J. et al. *Spot-Crossing Variations Confirm a Misaligned Orbit for a Planet Transiting an M Dwarf*. AJ, 170, 200 (2025).
13. **Yee, S. W.**, Winn, J., Hartman, J., et al. *The TESS Grand Unified Hot Jupiter Survey III. Thirty New Planets*. ApJS, 280, 30 (2025).
12. Tamburo, P., **Yee, S. W.**, García-Mejía, J. et al. *The True Stellar Obliquity of a Sub-Saturn Planet from the Tierras Observatory and KPF*. AJ, 170, 34 (2025).
11. **Yee, S. W.**, Stefansson, G., Thorngren, D. P. et al. *The Super-Puff WASP-193 b is on a Well-Aligned Orbit*. AJ, 169, 225 (2025).
10. McKee, B., Montet, B., **Yee, S. W.** et al. *A Planet Candidate Orbiting near the Hot Jupiter TOI-2818 b Inferred through Transit Timing*. ApJ, 981, 106 (2025).
9. **Yee, S. W.**, Petigura, E., Isaacson, H., et al. *Additional Doppler Monitoring Corroborates HAT-P-11c as a Planet*. RNAAS, 8, 187 (2024).
8. **Yee, S. W.** & Winn, J. *The Period Distribution of Hot Jupiters is Not Dependent on Host Star Metallicity*. ApJL, 949, L21 (2023).
7. **Yee, S. W.**, Winn, J., Hartman, J., et al. *The TESS Grand Unified Hot Jupiter Survey II. Twenty New Giant Planets*. ApJS, 265, 1 (2023).

6. **Yee, S. W.**, Winn, J., Hartman, J., et al. *The TESS Grand Unified Hot Jupiter Survey I. Ten TESS Planets*. AJ, 164, 70 (2022).
5. **Yee, S. W.**, Winn, J. & Hartman, J. *How Complete Are Surveys for Nearby Transiting Hot Jupiters?* AJ, 162, 240 (2021).
4. **Yee, S. W.**, Tamayo, D., Hadden, S. & Winn, J. *How Close are Compact Multi-Planet Systems to the Stability Limit?* AJ, 162, 55 (2021).
3. **Yee, S. W.**, Winn, J., Knutson, H., et al. *The Orbit of WASP-12b is Decaying*. ApJL, 888, L5 (2020).
2. **Yee, S. W.**, Petigura, E., Fulton, B., et al. *HAT-P-11: Discovery of a Second Planet and a Clue to Understanding Exoplanet Obliquities*. AJ, 155, 255 (2018).
1. **Yee, S. W.**, Petigura, E. & von Braun, K. *Precision Stellar Characterization of FGKM Stars using an Empirical Spectral Library*. ApJ, 836, 77 (2017).

### Contributing Author

30. Quinn, S., et al. incl. **Yee, S. W.** *TOI-2494 b and TOI-5143 b: a pair of hot giant planets flanked by inner small planets*. submitted to AAS Journals (2025).
29. Manni, F., et al. incl. **Yee, S. W.** *The Hot Neptune Initiative (HONEI) II. TOI-5795 b: A hot super-Neptune orbiting a metal-poor star*. submitted to MNRAS (2025). [[arXiv:2507.23413](https://arxiv.org/abs/2507.23413)]
28. Schulte, J., et al. incl. **Yee, S. W.** *Migration and Evolution of giant ExoPlanets (MEEP) II: Super-Jupiters and Lithium-rich Host Stars*. MNRAS, 543, 292 (2025).
27. Essack, Z., et al. incl. **Yee, S. W.** *Giant Outer Transiting Exoplanet Mass (GOT EM) Survey. VI: Confirmation of a Long-Period Giant Planet Discovered with a Single TESS Transit*. AJ, 170, 109 (2025).
26. Naponeillo, L., et al. incl. **Yee, S. W.** *The Hot-Neptune Initiative (HONEI) I. Two hot sub-Neptunes on a close-in, eccentric orbit (TOI-5800 b) and a farther-out, circular orbit (TOI-5817 b)*. A&A, 701, 79 (2025).
25. Howard, A. W., et al. incl. **Yee, S. W.** *Planet Masses, Radii, and Orbits from NASA's K2 Mission*. ApJS, 278, 52 (2025).
24. Brinkman, C. L., et al. incl. **Yee, S. W.** *The Compositions of Rocky Planets in Close-in Orbits Tend to be Earth-Like* AJ, 170, 109 (2025).
23. Hon, M., et al. incl. **Yee, S. W.** *A Disintegrating Rocky Planet with Prominent Comet-like Tails Around a Bright Star*. ApJL, 984, L3 (2025).
22. Van Zandt, J., et al. incl. **Yee, S. W.** *The TESS-Keck Survey XXIV: Outer Giants may be More Prevalent in the Presence of Inner Small Planets*. AJ, 169, 235 (2025).
21. Saunders, N., et al. incl. **Yee, S. W.** *TESS Giants Transiting Giants. VII. A Hot Saturn Orbiting an Oscillating Red Giant Star*. AJ, 169, 75 (2025).
20. Ehrhardt, J., et al. incl. **Yee, S. W.** *Confirmation of four Hot Jupiters detected by TESS using follow-up spectroscopy from MaHPS at Wendelstein together with NEID and TRES*. A&A, 692, 220 (2024).
19. Isaacson, H., et al. incl. **Yee, S. W.** *The California Legacy Survey. V. Cataloging Chromospheric Activity Cycles of Planet Search Stars*. ApJS, 274, 35 (2024).
18. Alqasim, A., et al. incl. **Yee, S. W.** *TOI-757 b: an eccentric transiting mini-Neptune on a 17.5-d orbit*. MNRAS, 533, 1 (2024).
17. Radzom, B., et al. incl. **Yee, S. W.** *Evidence for Primordial Alignment: Insights from Stellar Obliquity Measurements for Compact Sub-Saturn Systems*. AJ, 168, 116 (2024).
16. Dai, F., et al. incl. **Yee, S. W.** *An Earth-sized Planet on the Verge of Tidal Disruption*. AJ, 168, 101 (2024).
15. Hacker, A., et al. incl. **Yee, S. W.** *TOI-2374 b and TOI-3071 b: two metal-rich sub-Saturns well within the Neptunian desert*. MNRAS, 532, 1612 (2024).

14. Schulte, J., et al. incl. **Yee, S. W.** *Migration and Evolution of giant ExoPlanets (MEEP) I: Nine Newly Confirmed Hot Jupiters from the TESS Mission.* AJ, 168, 101 (2024).
13. Polanski, A., et al. incl. **Yee, S. W.** *The TESS-Keck Survey XX: 15 New TESS Planets and a Uniform RV Analysis of all Survey Targets.* ApJS, 272, 32 (2024).
12. Louden, E., et al. incl. **Yee, S. W.** *A Larger Sample Confirms Small Planets Around Hot Stars Are Misaligned.* ApJL, 968, L2 (2024).
11. Battley, M., et al. incl. **Yee, S. W.** *NGTS-30 b/TOI-4862 b: An  $\sim 1$  Gyr old 98-day transiting warm Jupiter.* A&A, 686, 230.
10. Hu, Q., et al. incl. **Yee, S. W.** *The PFS view of TOI-677 b: A spin-orbit aligned warm Jupiter in a dynamically hot system.* AJ, 167, 175 (2024).
9. Rubenzahl, R., et al. incl. **Yee, S. W.** *The TESS-Keck Survey. XII. A Dense  $1.8 R_{\oplus}$  Ultra-Short-Period Planet Possibly Clinging to a High-Mean-Molecular-Weight Atmosphere After the First Gyr.* AJ, 167, 53 (2024).
8. Delamer, M., et al. incl. **Yee, S. W.** *TOI-4201: An Early M-dwarf Hosting a Massive Transiting Jupiter Stretching Theories of Core Accretion.* ApJL, 962, L22 (2024).
7. Schmidt, S., et al. incl. **Yee, S. W.** *Verification of Gaia DR3 Single-lined Spectroscopic Binary Solutions With Three Transiting Low-mass Secondaries.* AJ, 166, 225 (2023).
6. Psaridi, A., et al. incl. **Yee, S. W.** *Three Saturn-mass planets transiting F-type stars revealed with TESS and HARPS.* A&A, 675, A39 (2023).
5. MacDougall, M. G. et al., incl. **Yee, S. W.** *The TESS-Keck Survey. XV. Precise Properties of 108 TESS Planets and Their Host Stars.* AJ, 166, 33 (2023).
4. Zink, J. K. et al., incl. **Yee, S. W.** *Scaling K2. VI. Reduced Small Planet Occurrence in High Galactic Amplitude Stars.* AJ, 165, 262 (2023).
3. Fraizer, R. C. et al., incl. **Yee, S. W.** *NEID Reveals that The Young Warm Neptune TOI 2076b Has a Low Obliquity.* ApJL, 944, L41 (2023).
2. Essack, Z. E. et al., incl. **Yee, S. W.** *TOI-1075 b: A Dense, Massive, Ultra-Short Period Hot Super-Earth Straddling the Radius Gap.* AJ, 165, 47 (2023).
1. Petigura, E. et al., incl. **Yee, S. W.** *Planet Candidates from K2 Campaigns 5-8 and Follow-up Optical Spectroscopy.* AJ, 155, 21 (2018).

### Observing Programs

**Summary:** I have led as PI or co-PI observing programs across more than 100 nights on various ground-based facilities. This includes 6 nights on Keck (NOIRLab and NASA), 6.5 nights on Gemini-North (NOIRLab), 27 nights on the WIYN 3.5m (NOIRLab), and 20 nights on Magellan (institutional access).

### Advising

**Jea Adams** (Harvard PhD Student): *Discovery of a Brown Dwarf Transiting a Thick Disk Star*  
**Victoria DiTomasso** (Harvard PhD Student): *A Homogeneous Spectroscopic Analysis of Hot Jupiter Host Stars*  
**Tarisai Dziire** (NYU Shanghai Undergraduate): *Characterizing the Hot Jupiter with the Largest TTVs*

### Grants

Heising-Simons 51 Pegasi b Fellowship	\$415k
NASA Keck PI Data Awards (Science PI, 2022B-2023B)	\$45k
NASA WIYN PI Data Awards (Science PI, 2021B-2023B)	\$39k

### Observing Experience

Magellan/PFS – 33 nights  
 Keck/HIRES – 22 nights  
 Keck/KPF – 4 nights

Presentations	UT Austin Department of Astronomy Colloquium ( <i>invited seminar</i> )	Mar 2025
	Know thy Star 2, Pasadena ( <i>contributed talk</i> )	Feb 2025
	MSU Astronomy Seminar, Lansing, MI ( <i>invited seminar</i> )	Nov 2024
	51 Pegasi b Fellows Symposium, San Francisco ( <i>contributed talk</i> )	Aug 2024
	Exoplanets V, Leiden ( <i>contributed plenary session talk</i> )	Jun 2024
	Extreme Solar Systems V, Christchurch ( <i>contributed talk</i> )	Mar 2024
	Open Problems in the Astrophysics of Gas Giants, Puerto Natales ( <i>contributed talk</i> )	Dec 2023
	Harvard CfA Exoplanet Pizza Lunch ( <i>invited seminar</i> )	Oct 2023
	51 Pegasi b Fellows Symposium, San Francisco, CA ( <i>contributed talk</i> )	Aug 2023
	2023 Sagan Workshop, Pasadena, CA ( <i>poster</i> )	Jul 2023
	AAS General Meeting 241, Seattle ( <i>contributed talk</i> )	Jan 2023
	TESS Science Team Meeting #29, Cambridge, MA ( <i>contributed talk</i> )	Oct 2022
	Harvard CfA Seminar, Cambridge, MA ( <i>invited seminar</i> )	Oct 2022
	MIT TESS Science Talk, Cambridge, MA ( <i>invited seminar</i> )	Oct 2022
	ERES VII, State College ( <i>contributed talk</i> )	Aug 2022
	Exoplanets IV, Las Vegas ( <i>contributed plenary session talk</i> )	May 2022
	Yale Exoplanets and Stars Seminar ( <i>invited seminar</i> )	Apr 2022
	AAS Division of Dynamical Astronomy Meeting 52, online ( <i>contributed talk</i> )	May 2021
	AAS General Meeting 235, Honolulu ( <i>poster</i> )	Jan 2020
	Exoplanets & Planet Formation, Shanghai ( <i>poster</i> )	Dec 2017
	Know thy Star, Pasadena ( <i>poster</i> )	Sep 2017
Teaching	Assistant in Instruction	Princeton
	AST 205, <i>Planets in the Universe</i>	Sep 2019 – Jan 2020
	Teaching Assistant	Caltech
	Ph 12c, <i>Statistical Mechanics</i>	Mar 2018 – Jun 2018
	Ph 12b, <i>Quantum Mechanics</i>	Jan 2018 – Mar 2018
	Peer Tutor	Caltech, 2016 – 2018
Professional Activities	Referee, <i>AAS Journals</i> , <i>MNRAS</i> , <i>A&amp;A</i> , <i>PASP</i>	2020 – present
	Panel Member, NOIRLab Time Allocation Committee	2024 – present
	Expert Reviewer, NASA Peer Review	2025
	Expert Reviewer, HST Time Allocation Committee	2024
	External Reviewer, Canada Time Allocation Committee	2025
	Virtual Organizing Committee, <i>Emerging Researchers in Exoplanet Science (ERES) V</i>	2021
Code	Bhatti, W., Bouma, L., & Yee, S. W. <i>cdips-pipeline: difference-imaging photometry pipeline</i>	
	Yee, S. W., Petigura, E., von Braun, K. <i>SpecMatch-Emp: stellar characterization using an empirical spectral library</i>	
Press Coverage	CNN: <a href="#">This exoplanet is in a death dance with its star</a>	
	Popular Science: <a href="#">This pitch-black exoplanet is spiraling toward its doom</a>	
Outreach & Service	<i>Princeton Public Observing</i> : Organize and host members of the public at observing events using the Princeton department telescope.	
	<i>Intro2Astro</i> : Gave lectures for Intro2Astro, an online summer course introducing students to astronomy research.	
	<i>Astro Department Graduate Student Mentorship Program</i> , Princeton University	

