

Research Interests

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

Education

Princeton University Princeton, NJ
Ph.D., Astrophysics; M.Sc., Astrophysics (2020) 09/2018 – 08/2023 (*expected*)
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

Appointments

Center for Astrophysics | Harvard & Smithsonian Cambridge, MA
51 Pegasi b Postdoctoral Fellow Starting 09/2023

Awards

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 Author

8. **Yee, S. W.** & Winn, J. *The Period Distribution of Hot Jupiters is Independent of Host Metallicity*. ApJL, submitted (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., et al. *The Orbit of WASP-12b is Decaying*. ApJL, 888, L5 (2020).
2. **Yee, S. W.**, Petigura, E., 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

6. Psaridi, A., incl. **Yee, S. W.** *Three Saturn-mass planets transiting F-type stars revealed with TESS and HARPS*. in prep.
5. Zink, J. K. et al., incl. **Yee, S. W.** *Scaling K2. VI. Reduced Small Planet Occurrence in High Galactic Amplitude Stars*. in prep.
4. MacDougall, M. G. et al., incl. **Yee, S. W.** *The TESS-Keck Survey: Precise Properties of 106 TESS Planets and Their Host Stars*. AJ, submitted (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	The TESS Grand Unified Hot Jupiter Survey (PI)	2023A
	Keck I/HIRES – 1 night (NASA); Magellan/PFS – 1.5 nights (Princeton)	
	WIYN/NEID – 2.7 nights (NOIRLab); CTIO1.5m/CHIRON – 5.2 nights (NOIRLab);	
	Small Friends to Hot Jupiters (PI)	2023A
	WIYN/NEID – 1.9 nights (NOIRLab);	
	The TESS Grand Unified Hot Jupiter Survey (PI)	2022B
	Keck I/HIRES – 1.5 nights (NASA); Magellan/PFS – 2 nights (Princeton)	
	WIYN/NEID – 2.8 nights (NOIRLab); CTIO1.5m/CHIRON – 6.3 nights (NOIRLab);	
	MINERVA-Australis – 1.5 nights (NOIRLab);	
	The TESS Grand Unified Hot Jupiter Survey (PI)	2022A
	Keck I/HIRES – 1.5 nights (NOIRLab); Magellan/PFS – 2 nights (Princeton)	
	WIYN/NEID – 2.3 nights (NOIRLab); CTIO1.5m/CHIRON – 5.9 nights (NOIRLab);	
	MINERVA-Australis – 1.5 nights (NOIRLab);	
	The TESS Grand Unified Hot Jupiter Survey (PI)	2021B
	Keck I/HIRES – 0.5 nights (NOIRLab); Magellan/PFS – 2 nights (Princeton)	
Observing Experience	CTIO1.5m/CHIRON – 5 nights (NOIRLab); WIYN/NEID – 2 nights (NOIRLab);	
	Magellan/PFS – 29 nights	
Presentations	Keck/HIRES – 17 nights	
	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 VI, 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&A</i> Virtual Organizing Committee, <i>Emerging Researchers in Exoplanet Science (ERES) V</i>	2020 – present 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>	
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 <i>Graduate Student Buddy Program</i> , Princeton University	