

# Samuel Yee

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

**Education**

<b>Princeton University</b>	Princeton, NJ
Ph.D., Astrophysics; M.Sc., Astrophysics (2020)	09/2018 – 08/2023 ( <i>expected</i> )
Thesis: <i>The TESS Grand Unified Hot Jupiter Survey</i>	
Advisor: Joshua Winn	
<b>California Institute of Technology</b>	Pasadena, CA
B.S., Physics, with Minor in Geological and Planetary Sciences	09/2014 - 06/2018

**Appointments**

<b>Center for Astrophysics   Harvard &amp; Smithsonian</b>	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 Not Dependent on Host Star Metallicity*. ApJL, in press (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

7. Psaridi, A., incl. **Yee, S. W.** *Three Saturn-mass planets transiting F-type stars revealed with TESS and HARPS*. A&A, in press (2023).
6. Zink, J. K. et al., incl. **Yee, S. W.** *Scaling K2. VI. Reduced Small Planet Occurrence in High Galactic Amplitude Stars*. AJ, in press (2023).

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, in press (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

<b>The TESS Grand Unified Hot Jupiter Survey</b> (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);	
<b>Small Friends to Hot Jupiters</b> (PI)	2023A
WIYN/NEID – 1.9 nights (NOIRLab);	
<b>The TESS Grand Unified Hot Jupiter Survey</b> (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);	
<b>The TESS Grand Unified Hot Jupiter Survey</b> (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);	
<b>The TESS Grand Unified Hot Jupiter Survey</b> (PI)	2021B
Keck I/HIRES – 0.5 nights (NOIRLab); Magellan/PFS – 2 nights (Princeton)	
CTIO1.5m/CHIRON – 5 nights (NOIRLab); WIYN/NEID – 2 nights (NOIRLab);	

## Observing Experience

Magellan/PFS – 29 nights  
Keck/HIRES – 17 nights

## Presentations

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

**Professional  
Activities**

Referee, *AAS Journals, MNRAS, A&A* 2020 – present  
Virtual Organizing Committee, *Emerging Researchers in Exoplanet Science (ERES) V* 2021

**Code**

Bhatti, W., Bouma, L., & **Yee, S. W.** *cdips-pipeline: difference-imaging photometry pipeline*  
**Yee, S. W.**, Petigura, E., von Braun, K. *SpecMatch-Emp: stellar characterization using an empirical spectral library*

**Outreach & Service**

*Princeton Public Observing*: Organize and host members of the public at observing events using the Princeton department telescope.

*Intro2Astro*: Gave lectures for Intro2Astro, an online summer course introducing students to astronomy research.

*Astro Department Graduate Student Mentorship Program*, Princeton University

*Graduate Student Buddy Program*, Princeton University