

Arpita Roy

Space Telescope Science Institute • Johns Hopkins University • 3700 San Martin Dr, Baltimore, MD 21218

✉ aroy@stsci.edu 🌐 arpita.space 📄 GitHub in LinkedIn

APPOINTMENTS

Assistant Astronomer Space Telescope Science Institute (STScI)	2020-Present
Associate Research Scientist Johns Hopkins University	2020-Present
Robert A. Millikan Prize Postdoctoral Fellow California Institute of Technology	2017-2020
Graduate Researcher Pennsylvania State University	2011-2020
Post-Baccalaureate Scholar Center for Exoplanets & Habitable Worlds, Penn State	2009-2010
Hackman Research Scholar Franklin & Marshall College	2007-2009

EDUCATION

The Pennsylvania State University University Park, PA PhD, <i>Summa Cum Laude</i> , Astronomy & Astrophysics	2017
Franklin & Marshall College (F&M) Lancaster, PA BA, <i>Magna Cum Laude</i> , Astrophysics (honors) + English (Creative Writing)	2009
St. Catherine's College, Oxford University Oxford, UK Study Abroad, First Class Distinction in Literature	2008

LEADERSHIP ROLES

NEID Guaranteed Time Exoplanet Survey STScI Lead	2021-Present
JWST Exoplanet Characterization Toolkit Project Deputy Science Lead	2021-Present
James Webb Space Telescope NIRISS Instrument Scientist	2020-Present
SPEXS-A Mission Concept Chair, Science & Operations Advisory Panel	2020-Present
NASA-NSF Extreme Precision Radial Velocity Working Group Co-Chair, Data Analysis Subgroup	2019-Present
TESS-Keck Exoplanet Survey Co-Investigator	2019-Present
SALT High Resolution Spectrograph Precision Implementation Lead	2018-Present
Keck Planet Finder Spectrograph Project Scientist	2017-Present
NEID Spectrograph Architect	2014-Present
Habitable Zone Planet Finder Spectrograph Architect	2011-Present
California Planet Search Meeting Lead	2018-2020
PARVI Spectrograph Pipeline Advisor	2018-2019
PARAS Spectrograph Architect & Pipeline Lead	2009-2017

HONORS & AWARDS

NASA Group Achievement Award NEID Team	2020
Sagan Postdoctoral Fellowship NASA (declined)	2020
NSF Astronomy & Astrophysics Postdoctoral Fellowship National Science Foundation (declined)	2017, 2020
AURA Future Leaders Fellow Association of Universities for Research in Astronomy	2019
KISS Postdoctoral Affiliate W. M. Keck Institute for Space Studies	2018-2020
Distinguished Doctoral Scholar Medal Penn State	2017
Penn State Dissertation Award Penn State	2017
Rodger Doxsey Dissertation Award American Astronomical Society	2017
Zaccheus Daniel Fellowship Penn State	2011,2014,2016
Lewis and Clark Field Scholar in Astrobiology NASA & APS	2015
Downsbrough Graduate Fellowship Penn State	2015
Stephen B. Brumbach Graduate Fellowship in Astrophysics Penn State	2013
Sigma Xi Grants-in-Aid of Research Sigma Xi	2013
SDSS Astronomer Travel Assistance Award Sloan Foundation	2013
Michael J. Mumma Senior Prize in Physics & Astronomy F&M	2009
Joseph R. Holzinger Senior Astronomy Award F&M	2009
John Kershner Physics Scholar F&M	2008,2009
Phi Beta Kappa National Honor Society F&M	2009
William Uhler Hensel Senior Prize F&M	2009
William Uhler Hensel Junior Prize F&M	2008
Sigma Pi Sigma National Honor Society F&M	2007

INVITED TALKS

Sagan Exoplanet Workshop Finding Young Planets with Precision Radial Velocities	2021
UCLA Astronomy Colloquium Secrets of the Instrument Builders	2020
Yale Exoplanets & Stellar Seminar Secrets of the Instrument Builders	2020
UC Berkeley Colloquium Of Worlds to Come: Exoplanets with Extreme Precision Spectroscopy	2020
UT Austin Colloquium Of Worlds to Come: Exoplanets with Extreme Precision Spectroscopy	2020
STScI Colloquium Of Worlds to Come: Exoplanets with Extreme Precision Spectroscopy	2020
University of Florida Colloquium Of Worlds to Come: Exoplanets with Extreme Precision Spectroscopy	2020
University of Indiana Colloquium From the Frontlines of the Exoplanet Revolution	2020
NASA Goddard Seminar The Precision Radial Velocity Landscape	2020
Frank N. Bash Symposium Extreme Precision Exoplanet Hunting Spectrographs	2019
Haverford Distinguished Visitors Program Witnessing the Exoplanet Revolution	2019
Extreme Precision in Radial Velocity IV Extremely Precise RV Pipelines Plenary	2019
Extreme Precision in Radial Velocity IV Breakout Session on Next Generation Pipeline Challenges	2019
Telluric Line Hack Week Modern Doppler Spectrometers & Stellar Radial Velocities	2019
TESS Data Science Workshop NEID + TESS	2019
California State University, Northridge, Colloquium Worlds Without End	2018
University of California, San Diego, Colloquium The Precision RV Landscape	2018
Precision Radial Velocity Landscape Review The Challenge of Precision RV Software	2018
Sagan Exoplanet Workshop Breaking the 1m/s Barrier	2018
High Dispersion Coronagraphy Workshop Synergies with Radial Velocity	2018
University of California, Santa Cruz, Colloquium Worlds Without End	2018
Jet Propulsion Laboratory Seminar The Keck Planet Finder	2018
Extremely Precise RV Workshop III The Deleterious Effects of Spectral Contamination	2017
Extremely Precise RV Workshop III Breakout Session on The Path to 10cm/s RV Precision	2017
Extremely Precise RV Workshop III The Keck Planet Finder	2017
American Astronomical Society Meeting The Smallest Signatures of Other Worlds	2017
NExSci Science Talk The Promise of New Worlds: Building New Gold Standards in Precision Spectroscopy	2016
Harvard-Smithsonian CfA Seminar The Promise of Worlds: The Potential of Next-Generation Spectrographs	2016
Carnegie Observatories Colloquium Beyond Radial Velocity: The Potential of Next-Generation Spectrographs	2016
Opportunity M The Habitable Zone Planet Finder Spectrograph	2016

ACADEMIC SERVICE

Proposal Review TESS, JWST, NASA ROSES, Gemini
Selection Committee NASA FINESST Fellowship, STScI Science Recruitment Committee, STScI Lasker Fellowship
Ombudsperson NEID Science Team
Referee ApJ, AJ, PASP, JATIS
Conference Organizing Committee ERES I, EPRV III, STScI Symposium 2021
Professional Memberships American Astronomical Society, SPIE

ADVISING

Daniel Holdsworth Research Associate, University of Central Lancashire	Present
Sarah Blunt Graduate Student, Caltech (co-advisor)	Present
Carlos Selgas Rowland Summer Research Fellow, JHU	Present
Alia Wofford National Astronomy Consortium Fellow, STScI	Present
KPF Pipeline Team Multi-institutional group with 15 members	Present
Elsa Palumbo Freshman Summer Research Fellow, Caltech	2019
Qifan Wang Schmidt Academy Post-Baccalaureate Fellow, Caltech	2019
Yuzo Ishikawa Graduate Student, San Francisco State University (co-advisor)	2019
Marie Weisfeiler Undergraduate Student, UC Berkeley (co-advisor)	2018

PATENTS

1. **Optical Scramblers**, Patent 20170045690, Inventors: Suvrath Mahadevan, Arpita Roy, Samuel Halverson (based on technology published in Halverson & Roy et al. 2015)
2. **A Robust Microscope for External Cell Phone Attachment**, Inventors: Arpita Roy, Suvrath Mahadevan, Samuel Halverson (PSU Lab Bench To Commercialization Grant; Provisional Patent, Licensed by Million Concepts LLC)

SELECT GRANTS

NSF MSIP: Mid-Scale Innovations Program (Project Scientist) \$6M, "The Keck Planet Finder"	2020
JPL Research & Technology Development Fund (Co-I) \$580k, "Sun-as-a-Star with NEID"	2020
Penn State Lab Bench to Commercialization Grant (PI) \$75k, "A High-Magnification Ball Lens Microscope"	2016

EQUITY & INCLUSION

STScI Women In Astronomy Forum (WIAF) Member	2020-Present
Towards a More Inclusive Astronomy (TaMIA, Caltech Chapter) Founder	2017-2020
Caltech Women's Engagement Board Member	2018-2020
Caltech Women Mentoring Women Program Mentor	2017-2020
Caltech WiPMA (Women in Physics, Math, Astronomy) Member	2017-2020
Penn State Towards a More Inclusive Astronomy (TaMIA) Member	2016-2017
Penn State Women in Astronomy Member	2013-2017

OUTREACH

Planet Finders Academy (NSF MSIP Project) Lead Organizer	2020 - Present
Caltech Public Lecture & Stargazing Series Invited Speaker	2018, 2019
Astronomy on Tap Invited Speaker	2018, 2019
Synergy Quantum Academy Lecture Series Invited Speaker	2018
Penn State AstroFest Exhibit Creator & Presenter	2010-2016
USA Science & Engineering Festival Presenter	2010-2014
Penn State Workshops in Astronomy for Educators Instructor	2014
Penn State Graduate Research Exhibition Presenter	2014
F&M Society for Physics Students President	2008-2009
North Museum Planetarium (Lancaster, PA) Presenter & Educator	2007-2009

TEACHING

Freshman Summer Research Institute Advisor, Caltech	2019
Introductory Astronomy Lab Instructor, Penn State	2011-2012
Life in the Universe Teaching Assistant & Guest Lecturer, Penn State	2012
Black Holes in the Universe Teaching Assistant, Penn State	2011
Summer Experience in the Eberly College of Science Instructor, Penn State	2010
Writing Center Tutor, F&M	2006-2007
AST100-200, PHY 100-200 Undergraduate Teaching Assistant, F&M	2006-2009

SELECT MEDIA COVERAGE

Caltech News Measuring the Minute Wobbles of Stars	Jan 2020
Discovery Channel's "How the Universe Works" "The Secret History of the Moon"	Season 4, Episode 6
Times of India "Exoplanet find that put India in select league"	June 2018
Discover Magazine's Top 100 Stories of 2014	Jan 2015
• #59 Beneath the Moon's Two Faces	
• #100 Meet the Exoplanet Class of 2014	
New York Times "The Moon Comes Around Again"	Sept 2014
Scientific American "2-Face Moon Tells How It Got That Way"	June 2014
National Geographic "One of the Most Earthlike Planets Ever Found May Not Exist"	July 2014
New York Times "Earthlike Planets May Be Merely An Illusion" July 2014	

PUBLICATIONS (FIRST AND SECOND AUTHOR)

1. Dai F, **Roy A**, Fulton B, et al. The TESS-Keck Survey. III. A Stellar Obliquity Measurement of TOI-1726 c. AJ 2020;160, 193:193.
2. **Roy A**, Halverson S, Mahadevan S, et al. Solar Contamination in Extreme-precision Radial-velocity Measurements: Deleterious Effects and Prospects for Mitigation. AJ 2020;159, 161:161.
3. Chakraborty A, **Roy A**, Sharma R, et al. Evidence of a Sub-Saturn around EPIC 211945201. AJ 2018;156, 3:3.
4. **Roy A**, Chakraborty A, Mahadevan S, et al. Precision velocimetry planet hunting with PARAS: current performance and lessons to inform future extreme precision radial velocity instruments. In: *Ground-based and Airborne Instrumentation for Astronomy VI*. Ed. by Evans CJ, Simard L, and Takami H. Vol. 9908. Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series. 2016:99086R. doi: [10.1117/12.2232833](https://doi.org/10.1117/12.2232833). arXiv: [1607.06485](https://arxiv.org/abs/1607.06485) [[astro-ph.IM](https://arxiv.org/abs/1607.06485)].
5. Halverson S, **Roy A**, Mahadevan S, et al. An Efficient, Compact, and Versatile Fiber Double Scrambler for High Precision Radial Velocity Instruments. ApJ 2015;806, 61:61.
6. Halverson S, **Roy A**, Mahadevan S, et al. "Modal Noise" in Single-mode Fibers: A Cautionary Note for High Precision Radial Velocity Instruments. ApJL 2015;814, L22:L22.
7. Robertson P, **Roy A**, and Mahadevan S. Stellar Activity Mimics a Habitable-zone Planet around Kapteyn's Star. ApJL 2015;805, L22:L22.
8. **Roy A**, Halverson S, Mahadevan S, et al. Scrambling and modal noise mitigation in the Habitable Zone Planet Finder fiber feed. In: *Ground-based and Airborne Instrumentation for Astronomy V*. Ed. by Ramsay SK, McLean IS, and Takami H. Vol. 9147. Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series. 2014:91476B. doi: [10.1117/12.2055342](https://doi.org/10.1117/12.2055342).

9. **Roy A**, Wright JT, and Sigurðsson S. Earthshine on a Young Moon: Explaining the Lunar Farside Highlands. *ApJL* 2014;788, L42:L42.
10. Wright JT, **Roy A**, Mahadevan S, et al. MARVELS-1: A Face-on Double-lined Binary Star Masquerading as a Resonant Planetary System and Consideration of Rare False Positives in Radial Velocity Planet Searches. *ApJ* 2013;770, 119:119.

PUBLICATIONS (ALL COAUTHOR)

11. Chontos A, Akana Murphy JM, MacDougall MG, et al. The TESS-Keck Survey: Science Goals and Target Selection. *arXiv e-prints* 2021, arXiv:2106.06156:arXiv:2106.06156.
12. Dai F, Howard AW, Batalha NM, et al. TKS X: Confirmation of TOI-1444b and a Comparative Analysis of the Ultra-short-period Planets with Hot Neptunes. *arXiv e-prints* 2021, arXiv:2105.08844:arXiv:2105.08844.
13. Dai F, Howard AW, Batalha NM, et al. TKS X: Confirmation of TOI-1444b and a Comparative Analysis of the Ultra-short-period Planets with Hot Neptunes. *AJ* 2021;162, 62:62.
14. Gupta AF, Wright JT, Robertson P, et al. Target Prioritization and Observing Strategies for the NEID Earth Twin Survey. *AJ* 2021;161, 130:130.
15. Kanodia S, Halverson S, Ninan JP, et al. A Harsh Test of Far-field Scrambling with the Habitable-zone Planet Finder and the Hobby-Eberly Telescope. *ApJ* 2021;912, 15:15.
16. Kanodia S, Stefansson G, Canas CI, et al. TOI-532b: The Habitable-zone Planet Finder confirms a Large Super Neptune in the Neptune Desert orbiting a metal-rich M dwarf host. *arXiv e-prints* 2021, arXiv:2107.13670:arXiv:2107.13670.
17. Krishnamurthy V, Hirano T, Stefansson G, et al. Non-detection of Helium in the upper atmospheres of TRAPPIST-1b, e and f. *arXiv e-prints* 2021, arXiv:2106.11444:arXiv:2106.11444 (Accepted).
18. Lubin J, Robertson P, Stefansson G, et al. Stellar Activity Manifesting at a One-year Alias Explains Barnard b as a False Positive. *AJ* 2021;162, 61:61.
19. Mahadevan S, Stefansson G, Robertson P, et al. The Habitable-zone Planet Finder Detects a Terrestrial-mass Planet Candidate Closely Orbiting Gliese 1151: The Likely Source of Coherent Low-frequency Radio Emission from an Inactive Star. *arXiv e-prints* 2021, arXiv:2102.02233:arXiv:2102.02233.
20. Rubenzahl RA, Dai F, Howard AW, et al. The TESS-Keck Survey. IV. A Retrograde, Polar Orbit for the Ultra-low-density, Hot Super-Neptune WASP-107b. *AJ* 2021;161, 119:119.
21. Terrien RC, Ninan JP, Diddams SA, et al. Broadband Stability of the Habitable Zone Planet Finder Fabry-Pérot Etalon Calibration System: Evidence for Chromatic Variation. *AJ* 2021;161, 252:252.
22. Tran QH, Bowler BP, Cochran WD, et al. The Epoch of Giant Planet Migration Planet Search Program. I. Near-infrared Radial Velocity Jitter of Young Sun-like Stars. *AJ* 2021;161, 173:173.
23. Wang JJ, Ruffio JB, Morris E, et al. Detection and Bulk Properties of the HR 8799 Planets with High Resolution Spectroscopy. *arXiv e-prints* 2021, arXiv:2107.06949:arXiv:2107.06949.
24. Weiss LM, Dai F, Huber D, et al. The TESS-Keck Survey. II. An Ultra-short-period Rocky Planet and Its Siblings Transiting the Galactic Thick-disk Star TOI-561. *AJ* 2021;161, 56:56.
25. Winters JG, Cloutier R, Medina AA, et al. A Second Planet Transiting LTT 1445A and a Determination of the Masses of Both Worlds. 2021. *arXiv: 2107.14737 [astro-ph.EP]*.
26. Canas CI, Stefansson G, Kanodia S, et al. A Warm Jupiter Transiting an M Dwarf: A TESS Single-transit Event Confirmed with the Habitable-zone Planet Finder. *AJ* 2020;160, 147:147.
27. Carleo I, Gandolfi D, Barragán O, et al. The Multiplanet System TOI-421. *AJ* 2020;160, 114:114.
28. Cloutier R, Rodriguez JE, Irwin J, et al. TOI-1235 b: A Keystone Super-Earth for Testing Radius Valley Emergence Models around Early M Dwarfs. *AJ* 2020;160, 22:22.
29. Crause LA, Kniazev A, Butler RP, et al. Towards precision radial velocity science with SALT's High-Resolution Spectrograph. In: *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*. Vol. 11447. Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series. 2020:1144746. doi: **10.1117/12.2562004**.
30. Dalba PA, Gupta AF, Rodriguez JE, et al. The TESS-Keck Survey. I. A Warm Sub-Saturn-mass Planet and a Caution about Stray Light in TESS Cameras. *AJ* 2020;159, 241:241.
31. Demory BO, Pozuelos FJ, Gómez Maqueo Chew Y, et al. A super-Earth and a sub-Neptune orbiting the bright, quiet M3 dwarf TOI-1266. *A&A* 2020;642, A49:A49.
32. Dreizler S, Crossfield IJM, Kossakowski D, et al. The CARMENES search for exoplanets around M dwarfs. LP 714-47 b (TOI 442.01): populating the Neptune desert. *A&A* 2020;644, A127:A127.
33. Gibson SR, Howard AW, Rider K, et al. Keck Planet Finder: design updates. In: *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*. Vol. 11447. Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series. 2020:1144742. doi: **10.1117/12.2561783**.
34. Kanodia S, Cañas CI, Stefansson G, et al. TOI-1728b: The Habitable-zone Planet Finder Confirms a Warm Super-Neptune Orbiting an M-dwarf Host. *ApJ* 2020;899, 29:29.

35. Kanodia S, Ninan JP, Monson AJ, et al. Ghosts of NEID's past. In: *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*. Vol. 11447. Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series. 2020:1144740. doi: [10.1117/12.2561679](https://doi.org/10.1117/12.2561679). arXiv: 2012.00182 [astro-ph.IM].
36. Ninan JP, Stefansson G, Mahadevan S, et al. Evidence for He I 10830 Å Absorption during the Transit of a Warm Neptune around the M-dwarf GJ 3470 with the Habitable-zone Planet Finder. *ApJ* 2020;894, 97:97.
37. Robertson P, Stefansson G, Mahadevan S, et al. Persistent Starspot Signals on M Dwarfs: Multiwavelength Doppler Observations with the Habitable-zone Planet Finder and Keck/HIRES. *ApJ* 2020;897, 125:125.
38. Schwab C, Monson AJ, Kanodia S, et al. The NEID spectrometer: fibre injection system design. In: *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*. Vol. 11447. Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series. 2020:114474L. doi: [10.1117/12.2563248](https://doi.org/10.1117/12.2563248).
39. Stefansson G, Cañas C, Wisniewski J, et al. A Sub-Neptune-sized Planet Transiting the M2.5 Dwarf G 9-40: Validation with the Habitable-zone Planet Finder. *AJ* 2020;159, 100:100.
40. Stefansson G, Mahadevan S, Maney M, et al. The Habitable Zone Planet Finder Reveals a High Mass and Low Obliquity for the Young Neptune K2-25b. *AJ* 2020;160, 192:192.
41. Stefansson G, Kopparapu R, Lin A, et al. A Mini-Neptune and a Radius Valley Planet Orbiting the Nearby M2 Dwarf TOI-1266 in Its Venus Zone: Validation with the Habitable-zone Planet Finder. *AJ* 2020;160, 259:259.
42. Blunt S, Endl M, Weiss LM, et al. Radial Velocity Discovery of an Eccentric Jovian World Orbiting at 18 au. *AJ* 2019;158, 181:181.
43. Gaudi S, Blackwood G, Howard A, et al. Extreme Precision Radial Velocity Working Group. In: *Bulletin of the American Astronomical Society*. Vol. 51. 2019:232.
44. Kaplan KF, Bender CF, Terrien RC, et al. The Algorithms Behind the HPF and NEID Pipeline. In: *Astronomical Data Analysis Software and Systems XXVII*. Ed. by Teuben PJ, Pound MW, Thomas BA, et al. Vol. 523. Astronomical Society of the Pacific Conference Series. 2019:567.
45. Mahadevan S, Bender CF, Hambleton K, et al. The SDSS-HET Survey of Kepler Eclipsing Binaries. Description of the Survey and First Results. *ApJ* 2019;884, 126:126.
46. Metcalf AJ, Anderson T, Bender CF, et al. Stellar spectroscopy in the near-infrared with a laser frequency comb. *Optica* 2019;6:233.
47. Ninan JP, Mahadevan S, Stefansson G, et al. Impact of crosshatch patterns in H2RGs on high-precision radial velocity measurements: exploration of measurement and mitigation paths with the Habitable-Zone Planet Finder. *Journal of Astronomical Telescopes, Instruments, and Systems* 2019;5, 041511:041511.
48. Robertson P, Anderson T, Stefansson G, et al. Ultrastable environment control for the NEID spectrometer: design and performance demonstration. *Journal of Astronomical Telescopes, Instruments, and Systems* 2019;5, 015003:015003.
49. Wright J. Searches for Technosignatures: The State of the Profession. In: *Bulletin of the American Astronomical Society*. Vol. 51. 2019:39. arXiv: 1907.07832 [astro-ph.IM].
50. Chakraborty A, Thapa N, Kumar K, et al. PARAS-2 precision radial velocimeter: optical and mechanical design of a fiber-fed high resolution spectrograph under vacuum and temperature control. In: *Ground-based and Airborne Instrumentation for Astronomy VII*. Ed. by Evans CJ, Simard L, and Takami H. Vol. 10702. Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series. 2018:107026G. doi: [10.1117/12.2313055](https://doi.org/10.1117/12.2313055).
51. Gibson SR, Howard AW, Roy A, et al. Keck Planet Finder: preliminary design. In: *Ground-based and Airborne Instrumentation for Astronomy VII*. Ed. by Evans CJ, Simard L, and Takami H. Vol. 10702. Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series. 2018:107025X. doi: [10.1117/12.2311565](https://doi.org/10.1117/12.2311565).
52. Kanodia S, Mahadevan S, Ramsey LW, et al. Overview of the spectrometer optical fiber feed for the habitable-zone planet finder. In: *Ground-based and Airborne Instrumentation for Astronomy VII*. Ed. by Evans CJ, Simard L, and Takami H. Vol. 10702. Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series. 2018:107026Q. doi: [10.1117/12.2313491](https://doi.org/10.1117/12.2313491). arXiv: 1808.00557 [astro-ph.IM].
53. Logsdon SE, McElwain MW, Gong Q, et al. The NEID precision radial velocity spectrometer: port adapter overview, requirements, and test plan. In: *Ground-based and Airborne Instrumentation for Astronomy VII*. Ed. by Evans CJ, Simard L, and Takami H. Vol. 10702. Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series. 2018:1070267. doi: [10.1117/12.2312209](https://doi.org/10.1117/12.2312209).
54. Ninan JP, Bender CF, Mahadevan S, et al. The Habitable-Zone Planet Finder: improved flux image generation algorithms for H2RG up-the-ramp data. In: *High Energy, Optical, and Infrared Detectors for Astronomy VIII*. Ed. by Holland AD and Beletic J. Vol. 10709. Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series. 2018:107092U. doi: [10.1117/12.2312787](https://doi.org/10.1117/12.2312787).
55. Schwab C, Liang M, Gong Q, et al. The NEID precision radial velocity spectrometer: optical design of the port adapter and ADC. In: *Ground-based and Airborne Instrumentation for Astronomy VII*. Ed. by Evans CJ, Simard L, and Takami H. Vol. 10702. Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series. 2018:1070271. doi: [10.1117/12.2314420](https://doi.org/10.1117/12.2314420).

56. Sirk MM, Wishnow EH, Weisfeiler M, et al. A optical fiber double scrambler and mechanical agitator system for the Keck planet finder spectrograph. In: *Ground-based and Airborne Instrumentation for Astronomy VII*. Ed. by Evans CJ, Simard L, and Takami H. Vol. 10702. Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series. 2018:107026F. doi: [10.1117/12.2312945](https://doi.org/10.1117/12.2312945).
57. Bender CF, Robertson P, Stefansson GK, et al. The instrument control software package for the Habitable-Zone Planet Finder spectrometer. In: *Software and Cyberinfrastructure for Astronomy IV*. Ed. by Chiozzi G and Guzman JC. Vol. 9913. Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series. 2016:991338. doi: [10.1117/12.2233011](https://doi.org/10.1117/12.2233011).
58. Chaturvedi P, Chakraborty A, Anandarao BG, et al. Detection of a very low mass star in an eclipsing binary system. 2016;462:554–64.
59. Halverson S, Terrien R, Mahadevan S, et al. A comprehensive radial velocity error budget for next generation Doppler spectrometers. In: *Ground-based and Airborne Instrumentation for Astronomy VI*. Ed. by Evans CJ, Simard L, and Takami H. Vol. 9908. Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series. 2016:99086P. doi: [10.1117/12.2232761](https://doi.org/10.1117/12.2232761). arXiv: [1607.05634](https://arxiv.org/abs/1607.05634) [astro-ph.IM].
60. Kane SR, Wittenmyer RA, Hinkel NR, et al. Evidence for Reflected Light from the Most Eccentric Exoplanet Known. ApJ 2016;821, 65:65.
61. Robertson P, Bender C, Mahadevan S, et al. Proxima Centauri as a Benchmark for Stellar Activity Indicators in the Near-infrared. ApJ 2016;832, 112:112.
62. Robertson PM, Hearty FR, Anderson TB, et al. A system to provide sub-milliKelvin temperature control at T 300K for extreme precision optical radial velocimetry. In: *Ground-based and Airborne Instrumentation for Astronomy VI*. Ed. by Evans CJ, Simard L, and Takami H. Vol. 9908. Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series. 2016:990862. doi: [10.1117/12.2231311](https://doi.org/10.1117/12.2231311).
63. Schwab C, Rakich A, Gong Q, et al. Design of NEID, an extreme precision Doppler spectrograph for WIYN. In: *Ground-based and Airborne Instrumentation for Astronomy VI*. Ed. by Evans CJ, Simard L, and Takami H. Vol. 9908. Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series. 2016:99087H. doi: [10.1117/12.2234411](https://doi.org/10.1117/12.2234411).
64. Stefansson G, Hearty F, Robertson P, et al. A Versatile Technique to Enable Sub-milli-Kelvin Instrument Stability for Precise Radial Velocity Measurements: Tests with the Habitable-zone Planet Finder. ApJ 2016;833, 175:175.
65. Stefansson GK, Hearty FR, Robertson PM, et al. Ultra-stable temperature and pressure control for the Habitable-zone Planet Finder spectrograph. In: *Ground-based and Airborne Instrumentation for Astronomy VI*. Ed. by Evans CJ, Simard L, and Takami H. Vol. 9908. Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series. 2016:990871. doi: [10.1117/12.2233443](https://doi.org/10.1117/12.2233443).
66. Fleming SW, Mahadevan S, Deshpande R, et al. The APOGEE Spectroscopic Survey of Kepler Planet Hosts: Feasibility, Efficiency, and First Results. AJ 2015;149, 143:143.
67. Robertson P, Mahadevan S, Endl M, et al. Response to Comment on “Stellar activity masquerading as planets in the habitable zone of the M dwarf Gliese 581”. Science 2015;347:1080–0.
68. Robertson P, Roy A, and Mahadevan S. Stellar Activity Mimics a Habitable-zone Planet around Kapteyn’s Star. ApJL 2015;805, L22:L22.
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