

Benjamin James (BJ) Fulton

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Research Scientist / NN-EXPLORE Project Scientist

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Research Interests

I strive to understand Earth's context in the galaxy through the detection, characterization, and demography of exoplanets. I push the radial velocity detection method to the limit through advanced analysis techniques, observational strategies, and hardware optimization.

Education

- 2017 - Doctor of Philosophy in Astronomy from the Institute for Astronomy at the University of Hawaii, Manoa
- 2014 - Master of Science in Astronomy from the Institute for Astronomy at the University of Hawaii, Manoa
- 2009 - Bachelor of Science in Physics with a Minor in Astronomy and Planetary Science from the University of California, Santa Barbara

Professional Appointments

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| Research Scientist / NN-EXPLORE Project Scientist | NASA Exoplanet Science Institute / Caltech / JPL | April 2018 – present |
| Texaco Postdoctoral Fellow | California Institute of Technology | August 2017 – April 2018 |
| National Science Foundation Graduate Research Fellow | Institute for Astronomy, University of Hawaii | August 2014 – August 2017 |
| Graduate Research Assistant | Institute for Astronomy, University of Hawaii | August 2012 – August 2014 |
| Research Associate (Astronomy) | Las Cumbres Observatory | March 2009 - August 2012 |

Publication statistics

- **10 first author & major contributions in 8 second author refereed publications**
- 199 total refereed publications
- Contributions to 4 *Nature* publications
- 9272 citations (1413 citations to first-author papers)
- h-index = 49

Research Experience

- Deputy lead for the Keck Planet Finder (KPF) data reduction pipeline that will be an open-source toolkit to convert high-resolution optical spectra into extremely precise RVs for and other similar instruments
- Directed a study to analyze over 30 years of radial velocity data to determine the frequency of giant planets beyond 5 au ([Fulton et al. 2021](#)).
- Discovered a gap in the radius distribution of small planets found by *Kepler*. This has significant implications for our understanding of the formation and evolution of planets smaller than Neptune ([Fulton et al. 2017](#))
- Served as project scientist for the [NN-EXPLORE program](#), primarily overseeing the development of the pipeline and archive for the [NEID spectrograph](#)
- Developed an open source software package for the analysis of radial velocity time-series data written in object-oriented Python (radvel.readthedocs.io)
- Wrote software that allows the Automated Planet Finder (APF) telescope at Lick Observatory to operate autonomously. APF has been collecting high-precision radial velocities every night for the past 9 years.
- Development of the "Jump" target management database and web application used by the California Planet Search team, which honed my skills in Django, Javascript, CSS, Haml, and Docker (jump.caltech.edu)
- Developed a new technique to extract radial velocities from low signal-to-noise spectra which enabled the discovery of the Jupiter-size transiting exoplanet KELT-8b ([Fulton et al. 2015b](#))
- Published [Fulton et al. 2015a](#), and [Fulton et al. 2016](#) announcing the discovery of 5 new low-mass planets orbiting four nearby stars. These discoveries were made possible, in large part, by the APF facility.
- Published a paper ([Fulton et al., 2013](#)) for which I modeled the Rossiter-McLaughlin (R-M) effect to measure the stellar obliquity of HAT-P-17. I ported/adapted an existing Differential Evolution Markov Chain Monte Carlo code from IDL to Python, and wrote the model calculation code from scratch to take advantage of a new semi-analytical model of the R-M effect.
- Developed an automated planet detection algorithm to search for the signatures of planets in heterogeneous radial velocity datasets and characterize pipeline detection efficiency using injection-recovery tests ([Howard & Fulton 2016](#))

Academic Awards

- 2018 - Robert J. Trumpler award from the Astronomical Society of the Pacific for a PhD thesis considered particularly important to astronomy
- 2017 - Texaco prize postdoctoral fellowship at Caltech
- 2016 - ARCS Foundation Honolulu Scholar of the Year
- 2016 - Columbia ARCS Award in Astronomy
- 2015 - Student Excellence in Research Award at the University of Hawaii at Manoa
- 2014 - National Science Foundation Graduate Research Fellowship
- 2009 - Physics Research Honors award upon graduation from UC Santa Barbara

Student Mentoring

- **Spencer Hurt, Harvard Undergraduate (2019-present)**
Spencer contributed greatly to the RadVel Python package by optimizing it for speed, documentation, and modularity to ease community contributions. He is now applying it to the Gl 411 system to perform a detailed characterization of the system of planets orbiting the 4th closest star to the sun ([Hurt et al. 2021](#))
- **Cayla Dedrick, Caltech Undergraduate (2018-present)**
Cayla adapted and improved upon my algorithm for automated detection of planets in radial velocity data and used it to discover two planets straddling the habitable zone of a nearby star ([Dedrick et al. 2021](#))
- **Lee Rosenthal, Caltech PhD Candidate (2018-present)**
Lee expanded on the automated planet detection code developed by Cayla Dedrick and turned it into a publicly available open-source Python package. He used this to discover ~25 new planets in Keck/HIRES radial velocity data as part of a large program to measure the demographic properties of long-period gas giant planets. I'm currently serving as co-advisor with Andrew Howard. ([Rosenthal et al. 2021](#), [Fulton et al. 2021](#), and [code release](#))
- **Ilya Sherstyuk, Caltech Undergraduate (Summer 2019)**
Ilya developed an algorithm to analyze stellar activity indicators to distinguish between planets and stellar rotation signatures in radial velocity datasets

Teaching Experience

- 2020 - Designed and helped to build and instruct the hands-on activities for the online 2020 Sagan Summer Workshop
- 2015 - Designed curriculum and instructed "Introduction to Astronomy" summer course at the University of Hawaii at Manoa
- 2015 - Designed and lead a "Python for Astronomers" seminar at the University of Hawaii
- 2012-2015 - Lectured and advised students during the annual HiSTAR program for K-12 students in Hawaii

Invited Talks

- 2021 - Seminar speaker at Princeton (virtual)
- 2021 - Seminar speaker at MPA in Heidelberg, Germany (virtual)
- 2021 - Invited speaker at the Sagan Summer Workshop in Pasadena, CA (virtual)
- 2020 - Colloquium speaker at University of Chicago in Illinois
- 2019 - Colloquium speaker at Stanford, CA
- 2019 - Review speaker for the Greater IPAC Science Symposium in Pasadena, CA
- 2018 - Colloquium speaker at Lowell Observatory in Flagstaff, Arizona
- 2018 - Center for Space and Habitability Colloquium speaker at Universität, Bern, Switzerland
- 2018 - Planetary Science / IPLEX seminar speaker at the University of California, Los Angeles
- 2017 - Panelist on occurrence rate panel at the ExoPAG16 meeting
- 2017 - FLASH seminar speaker at the University of California at Santa Cruz
- 2016 - Seminar speaker at the Center for Habitable Worlds at Penn State University
- 2013 - Public talk at a conference of The American Congress of Obstetricians and Gynecologists

Conferences and Meetings

- 2020 - Contributed talk at the Exoplanets III virtual conference
- 2020 - Served on the Science Advisory Committee for the online 2020 Sagan Summer Workshop
- 2019 - Contributed talk at the Extreme Solar Systems conference in Reykjavik, Iceland

- 2019 - Contributed talk at the Extreme Precision Radial Velocity Conference in Grindelwald, Switzerland
- 2019 - Contributed talk at the Kepler and K2 Science Meeting in Pasadena, California
- 2019 - Attended the Telluric Hackathon in New York City, New York
- 2018 - Contributed talk at the Keck Science Meeting in Pasadena, California
- 2018 - Contributed talk at the ExSoCal 2018 conference in Pasadena, California
- 2018 - Contributed talk at the Exoplanets II conference in Cambridge, UK
- 2017 - Co-Chair of “observing strategy” session at the Extremely Precise Radial Velocities III conference at Penn State
- 2017 - Poster at the Extremely Precise Radial Velocities III conference at Penn State
- 2017 - Contributed talk at the Kepler & K2 SciCon IV
- 2017 - Contributed talk at the 2017 Aspen Winter Conference: Formation and Dynamical Evolution of Exoplanets
- 2016 - Poster at the Exoplanets I conference in Davos, Switzerland
- 2015 - Poster at the Extreme Solar Systems III conference in Waikaloa, HI
- 2015 - Poster at the Sagan Workshop in Pasadena, CA
- 2015 - Poster at the Extreme Precision Radial Velocity workshop in New Haven, CT
- 2014 - Poster at the Toward Other Earths II conference in Porto, Portugal
- 2014 - Poster at the Sagan Workshop in Pasadena, CA
- 2014 - Poster at the Exoplanetary Science conference in Quy Nhon, Vietnam
- 2013 - Poster at the Kepler Science Conference II in Mountain View, CA
- 2013 - Poster at the American Astronomical Society Winter Meeting in Long Beach, CA

Observing Experience

- ~100 full or partial nights using the HIRES instrument on the Keck I telescope located on Maunakea
- ~800 nights on the Automated Planet Finder Telescope at Lick Observatory (mostly robotic running on my software)
- Approximately 20 nights using the OPTIC imager on the University of Hawaii 2.2 m telescope located on Maunakea
- Approximately 7 nights on the Nickel 1.0 m at Lick Observatory
- Approximately 180 nights on the Sedgwick telescope of the Las Cumbres Observatory network (mostly robotic running on my software)

Proposals

- ROSES EPRV – Astrophysical and Heliophysical Perspectives of the Sun as a Star – not selected

Hobbies and Interests

- Motorsports
 - 2020 - 3rd in the Porsche Owners Club Sim Racing Championship
 - 2018 - SCCA San Diego Match Tour STU class win
 - 2016 - 2018 - SCCA regional STU class champion
- Digital photography, including astrophotography
(Astronomy Picture of the Day, 08/26/2011 <http://apod.nasa.gov/apod/ap110826.html>)

Publication List

First Author

- **Fulton, B.J.** et al. (2021); *California Legacy Survey. II. Occurrence of Giant Planets beyond the Ice Line*, ApJS, 255, 14, ([2021ApJS..255...14F](#))
- **Fulton, B.J.** et al. (2018); *The California Kepler Survey VII. Precise Planet Radii Leveraging Gaia DR2 Reveal the Stellar Mass Dependence of the Planet Radius Gap*, AJ, 156, 264, ([2018AJ....156..264F](#))
- **Fulton, B.J.** et al. (2018); *RadVel: The Radial Velocity Modeling Toolkit*, PASP, 130, 986, ([2018PASP..130d4504F](#))
- **Fulton, B.J.** et al. (2017); *The California-Kepler Survey. III. A Gap in the Radius Distribution of Small Planets*, AJ, 154, 109 ([2017AJ....154..109F](#))
- **Fulton, B.J.** et al. (2016); *Three Temperate Neptunes Orbiting Nearby Stars*, ApJ, 830, 46 ([2015ApJ...830...1F](#))
- **Fulton, B.J.** et al. (2015b); *KELT-8b: A Highly Inflated Transiting Hot Jupiter and a New Technique for Extracting High-precision Radial Velocities from Noisy Spectra*, ApJ, 810, 30 ([2015ApJ...810...30F](#))
- **Fulton, B.J.** et al. (2015a); *Three Planets Orbiting HD 7924*, ApJ, 805, 175 ([2015ApJ...805..175F](#))

- **Fulton, B.J.** et al. (2014); *A Search for Planetary Eclipses of White Dwarfs in the Pan-STARRS1 Medium-deep Fields*, ApJ, 796, 114 ([2014ApJ...796..114F](#))
- **Fulton, B.J.** et al. (2013); *The Stellar Obliquity and the Long-period planet in the HAT-P-17 Exoplanetary System*, ApJ, 772, 80 ([2013ApJ...772...80F](#))
- **Fulton, B.J.** et al (2011); *Long-term Transit Timing Monitoring and Refined Light Curve Parameters of HAT-P-13b*, 2011, AJ, 142, 84 ([2011AJ....142...84F](#))

Major Contributions

- Hurt, S, **Fulton, B.J.**, et al. (2022); *Confirmation of the Long-period Planet Orbiting Gliese 411 and the Detection of a New Planet Candidate*, AJ, 163, 218H ([2022AJ....163..218H](#)) – Mentored lead author and directed study from the onset
- Rosenthal, L, **Fulton, B.J.**, et al. (2021); *The California Legacy Survey. I. A Catalog of 178 Planets from Precision Radial Velocity Monitoring of 719 Nearby Stars over Three Decades*, ApJS, 255, 8R ([2021ApJS..255....8R](#)) – Mentored lead author and directed study from the onset
- Dedrick, C, **Fulton, B. J.**, et al. (2021); *Two Planets Straddling the Habitable Zone of the Nearby K Dwarf Gl 414A*, AJ, 161, 86D ([2021AJ....161...86D](#)) – Mentored lead author throughout the study
- Dalba, P., **Fulton, B. J.**, et al. (2020); *Multiple Explanations for the Single Transit of KIC 5951458 Based on Radial Velocity Measurements Extracted with a Novel Matched-Template Technique*, AJ, 160, 149D ([2020AJ....160..149D](#)) – Developed the matched template technique for extracting radial velocities
- Howard, A. W., and **Fulton, B. J.** (2016); *Limits on Planetary Companions from Doppler Surveys of Nearby Stars*, PASP, 128, 969, ([2016PASP..128k4401H](#)) - Performed all analysis, produced all plots, and wrote most of the methods section
- Street, R. A., **Fulton, B. J.** et al (2015); *Extended Baseline Photometry of Rapidly Changing Weather Patterns on the Brown Dwarf Binary Luhman-16*, ApJ, 812, 161, ([2015ApJ...812..161S](#)) – Extracted the photometry in an initial reduction (the photometry was eventually superseded in the referee process)
- Knutson, H., **Fulton, B. J.** et al (2014); *Friends of Hot Jupiters. I. A Radial Velocity Search for Massive, Long-period Companions to Close-in Gas Giant Planets*, ApJ, 785, 126, ([2014ApJ...785..126K](#)) – Performed all radial velocity analysis, and wrote some of the methods section
- Sinukoff, E.; **Fulton, B. J.**; Scuderi, L.; Gaidos, E. (2013); *Below One Earth The Detection, Formation, and Properties of Subterrestrial Worlds*, Space Science Reviews, 10.1007 (<http://dx.doi.org/10.1007/s11214-013-0019-1>) – Performed analysis and wrote text for one of the major sections of the paper involving Kepler photometry

High Impact Journals

- Benneke et al. (2019); *A sub-Neptune exoplanet with a low-metallicity methane-depleted atmosphere and Mie-scattering clouds*, Nature Astronomy, Volume 3, Issue 813B ([2019NatAs...3..813B](#))
- Gaudi et al. (2017); *A giant planet undergoing extreme-ultraviolet irradiation by its hot massive-star host*, Nature, Volume 546, Issue 7659 ([2017Natur.546..514G](#))
- Howard et al. (2013); *A rocky composition for an Earth-sized exoplanet*, Nature, Volume 503, Issue 7476 ([2013Natur.503..381H](#))
- Nugent et al. (2011); *Supernova SN 2011fe from an exploding carbon-oxygen white dwarf star*, Nature, Volume 480, Issue 7377 ([2011Natur.480..344N](#))

Other Publications

- Chontos et al. (2022); *The TESS-Keck Survey: Science Goals and Target Selection*, AJ, 163, 297C ([2022AJ....163..297C](#))
- Turtelboom et al. (2022); *The TESS-Keck Survey. XI. Mass Measurements for Four Transiting Sub-Neptunes Orbiting K Dwarf TOI-1246*, AJ, 163, 293T ([2022AJ....163..293T](#))
- Christiansen et al. (2022); *Scaling K2. V. Statistical Validation of 60 New Exoplanets From K2 Campaigns 2-18*, AJ, 163, 244C ([2022AJ....163..244C](#))
- Chen et al. (2022); *Best Practices for Data Publication in the Astronomical Literature*, ApJS, 260, 5C ([2022ApJS..260....5C](#))
- Petigura et al. (2022); *The California-Kepler Survey. X. The Radius Gap as a Function of Stellar Mass, Metallicity, and Age*, AJ, 163, 179P ([2022AJ....163..179P](#))
- Winters et al. (2022); *A Second Planet Transiting LTT 1445A and a Determination of the Masses of Both Worlds*, AJ, 163, 168W ([2022AJ....163..168W](#))
- Yayaati et al. (2022); *Kepler-167e as a Probe of the Formation Histories of Cold Giants with Inner Super-Earths*, ApJ, 926, 62C ([2022ApJ...926...62C](#))
- Lubin et al. (2022); *TESS-Keck Survey. IX. Masses of Three Sub-Neptunes Orbiting HD 191939 and the Discovery of a Warm Jovian plus a Distant Substellar Companion*, AJ, 163, 101L ([2022AJ....163..101L](#))
- Dalba et al. (2022); *The TESS-Keck Survey. VIII. Confirmation of a Transiting Giant Planet on an Eccentric 261 Day Orbit with the Automated Planet Finder Telescope*, AJ, 163, 61D ([2022AJ....163...61D](#))
- Heidari et al. (2022); *HD 207897 b: A dense sub-Neptune transiting a nearby and bright K-type star*, A&A, 658A, 176H ([2022A&A...658A.176H](#))

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- Cale et al. (2021); *Diving Beneath the Sea of Stellar Activity: Chromatic Radial Velocities of the Young AU Mic Planetary System*, AJ, 162, 295C ([2021AJ....162..295C](#))
 - Akana Murphy et al. (2021); *Another Superdense Sub-Neptune in K2-182 b and Refined Mass Measurements for K2-199 b and c*, AJ, 162, 294A ([2021AJ....162..294A](#))
 - MacDougall et al. (2021); *The TESS-Keck Survey. VI. Two Eccentric Sub-Neptunes Orbiting HIP-97166*, AJ, 162, 265M ([2021AJ....162..265M](#))
 - Polanski et al. (2021); *Wolf 503 b: Characterization of a Sub-Neptune Orbiting a Metal-poor K Dwarf*, AJ, 162, 238P ([2021AJ....162..238P](#))
 - Sankar et al. (2021); *V488 Per Revisited: No Strong Mid-infrared Emission Features and No Evidence for Stellar/substellar Companions*, ApJ, 922, 75S ([2021ApJ...922...75S](#))
 - Scarsdale et al. (2021); *TESS-Keck Survey. V. Twin Sub-Neptunes Transiting the Nearby G Star HD 63935*, AJ, 162, 211H ([2021AJ....162..215S](#))
 - Hill, Michelle et al. (2021); *Asteroseismology of iota Draconis and Discovery of an Additional Long-period Companion*, AJ, 162, 211H ([2021AJ....162..211H](#))
 - Llop-Sayson, Jorge et al. (2021); *Constraining the Orbit and Mass of epsilon Eridani b with Radial Velocities, Hipparcos IAD-Gaia DR2 Astrometry, and Multiepoch Vortex Coronagraphy Upper Limits*, AJ, 162, 181L ([2021AJ....162..181L](#))
 - Osborn, Ares et al. (2021); *TOI-431/HIP 26013: a super-Earth and a sub-Neptune transiting a bright, early K dwarf, with a third RV planet*, MNRAS, 507, 507 ([2021MNRAS.507.2782O](#))
 - Dalba, Paul et al. (2021); *Giant Outer Transiting Exoplanet Mass (GOT 'EM) Survey. II. Discovery of a Failed Hot Jupiter on a 2.7 Yr, Highly Eccentric Orbit*, AJ, 162, 154D ([2021AJ....162..154D](#))
 - Zhang, Jingwen et al. (2021); *TKS X: Long-period Jovian Tilts the Orbits of Two sub-Neptunes Relative to Stellar Spin Axis in Kepler-129*, AJ, 162, 89Z ([2021AJ....162...89Z](#))
 - Dai et al. (2021); *TKS X: Confirmation of TOI-1444b and a Comparative Analysis of the Ultra-short-period Planets with Hot Neptunes*, AJ, 162, 62D ([2021AJ....162...62D](#))
 - David et al. (2021); *Evolution of the Exoplanet Size Distribution: Forming Large Super-Earths Over Billions of Years*, AJ, 161, 265D ([2021AJ....161..265D](#))
 - Hirsch et al. (2021); *Understanding the Impacts of Stellar Companions on Planet Formation and Evolution: A Survey of Stellar and Planetary Companions within 25 pc*, AJ, 161, 134H ([2021AJ....161..134H](#))
 - Rubenzhal et al. (2021); *The TESS-Keck Survey. IV. A Retrograde, Polar Orbit for the Ultra-low-density, Hot Super-Neptune WASP-107b*, AJ, 161, 119R ([2021AJ....161..119R](#))
 - Daylan et al. (2021); *TESS Discovery of a Super-Earth and Three Sub-Neptunes Hosted by the Bright, Sun-like Star HD 108236*, AJ, 161, 85D ([2021AJ....161...70P](#))
 - Piaulet et al. (2021); *WASP-107b's Density Is Even Lower: A Case Study for the Physics of Planetary Gas Envelope Accretion and Orbital Migration*, AJ, 161, 70P ([2021AJ....161...70P](#))
 - Lindor et al. (2021); *HAT-P-68b: A Transiting Hot Jupiter around a K5 Dwarf Star*, AJ, 161, 64L ([2021AJ....161...64L](#))
 - Weiss et al. (2021); *The TESS-Keck Survey. II. An Ultra-short-period Rocky Planet and Its Siblings Transiting the Galactic Thick-disk Star TOI-561*, AJ, 161, 56W ([2021AJ....161...56W](#))
 - Kosiarek et al. (2021); *Physical Parameters of the Multiplanet Systems HD 106315 and GJ 9827*, AJ, 161, 47K ([2021AJ....161...47K](#))
 - Dreizler et al. (2020); *The CARMENES search for exoplanets around M dwarfs. LP 714-47 b (TOI 442.01): populating the Neptune desert*, A&A, 644, 127D ([2020A&A...644A.127D](#))
 - Brahm et al. (2020); *TOI-481 b and TOI-892 b: Two Long-period Hot Jupiters from the Transiting Exoplanet Survey Satellite*, AJ, 160, 235B ([2020AJ....160..235B](#))
 - Dai et al. (2020); *The TESS-Keck Survey. III. A Stellar Obliquity Measurement of TOI-1726 c*, AJ, 160, 193 ([2020AJ....160..193D](#))
 - Niraula et al. (2020); *π Earth: A 3.14 day Earth-sized Planet from K2's Kitchen Served Warm by the SPECULOOS Team*, AJ, 160, 172N ([2020AJ....160..172N](#))
 - Carleo et al. (2020); *The Multiplanet System TOI-421*, AJ, 160, 114C ([2020AJ....160..114C](#))
 - Badenas-Agusti et al. (2020); *HD 191939: Three Sub-Neptunes Transiting a Sun-like Star Only 54 pc Away*, AJ, 160, 113B ([2020AJ....160..113B](#))
 - Kane et al. (2020); *Dynamical Packing in the Habitable Zone: The Case of Beta CVn*, AJ, 160, 81K ([2020AJ....160...81K](#))
 - Weiss et al. (2020); *The Discovery of the Long-Period, Eccentric Planet Kepler-88 d and System Characterization with Radial Velocities and Photodynamical Analysis*, AJ, 159, 242W ([2020AJ....159...242W](#))
 - Dalba et al. (2020); *The TESS-Keck Survey. I. A Warm Sub-Saturn-mass Planet and a Caution about Stray Light in TESS Cameras*, AJ, 159, 241D ([2020AJ....159...241D](#))
 - Guo et al. (2020); *Updated Parameters and a New Transmission Spectrum of HD 97658b*, AJ, 159, 239G ([2020AJ....159...239G](#))
 - Hill et al. (2020); *Orbital Refinement and Stellar Properties for the HD 9446, HD 43691, and HD 179079 Planetary Systems*, AJ, 159, 197H ([2020AJ....159...197H](#))
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- Wong et al. (2020); *The Full Kepler Phase Curve of the Eclipsing Hot White Dwarf Binary System KOI-964*, AJ, 159, 29 ([2020AJ....159....29W](#))
 - Petigura et al. (2020); *K2-19b and c are in a 3:2 Commensurability but out of Resonance: A Challenge to Planet Assembly by Convergent Migration*, AJ, 159, 1 ([2020AJ....159....2P](#))
 - Rodriguez et al. (2019); *KELT-24b: A 5 Mj Planet on a Well-aligned Orbit around the Young V=8.3 F-star HD 93148*, AJ, 158, 181 ([2019AJ....158..197R](#))
 - Blunt et al. (2019); *Radial Velocity Discovery of an Eccentric Jovian World Orbiting at 18 au*, AJ, 158, 181 ([2019AJ....158..181B](#))
 - Crossfield et al. (2019); *A Super-Earth and Sub-Neptune Transiting the Late-type M Dwarf LP 791-18*, ApJL, 883, L16 ([2019ApJ...883L..16C](#))
 - Zhou et al. (2019); *Two New HATNet Hot Jupiters around A Stars and the First Glimpse at the Occurrence Rate of Hot Jupiters from TESS*, AJ, 158, 141Z ([2019AJ....158..141Z](#))
 - Gaidos et al. (2019); *Planetesimals around stars with TESS (PAST) – I. Transient dimming of a binary solar analogue at the end of the planet accretion era*, MNRAS, 488, 4465 ([2019MNRAS.488.4465G](#))
 - Hey et al. (2019); *Six new rapidly oscillating Ap stars in the Kepler long-cadence data using super-Nyquist asteroseismology*, MNRAS, 488, 18H ([2019MNRAS.488...18H](#))
 - Vanderburg et al. (2019); *TESS Spots a Compact System of Super-Earths around the Naked-eye Star HR858*, ApJ, 881L, 19V ([2019AJ....158...79D](#))
 - David et al. (2019); *A Warm Jupiter-sized Planet Transiting the Pre-main-sequence Star V1298 Tau*, AJ, 158, 79D ([2019AJ....158...79D](#))
 - Johns et al. (2019); *KELT-23Ab: A Hot Jupiter Transiting a Near-solar Twin Close to the TESS and JWST Continuous Viewing Zones*, AJ, 158, 78J ([2019AJ....158...78J](#))
 - Yahalom et al. (2019); *The Mass of the White Dwarf Companion in the Self-lensing Binary KOI-3278: Einstein versus Newton*, ApJ, 880, 33Y ([2019ApJ...880...33Y](#))
 - Hirsch et al. (2019); *Discovery of a White Dwarf Companion to HD 159062*, ApJ, 878, 50H ([2019ApJ...878...50H](#))
 - Huber et al. (2019); *A Hot Saturn Orbiting an Oscillating Late Subgiant Discovered by TESS*, AJ, 157, 245H ([2019AJ....157..245H](#))
 - Mills et al. (2019); *The California-Kepler Survey. VIII. Eccentricities of Kepler Planets and Tentative Evidence of a High-metallicity Preference for Small Eccentric Planets*, AJ, 157, 198M ([2019AJ....157..198M](#))
 - Berardo et al. (2019); *Revisiting the HIP 41378 System with K2 and Spitzer*, AJ, 157, 185B ([2019AJ....157..185B](#))
 - Dragomir et al. (2019); *TESS Delivers Its First Earth-sized Planet and a Warm Sub-Neptune*, AJ, 875, 7D ([2019ApJ...875L...7D](#))
 - Mills et al. (2019); *Long-period Giant Companions to Three Compact, Multiplanet Systems*, AJ, 157, 145M ([2019AJ....157..145M](#))
 - Kosiarek et al. (2019); *K2-291b: A Rocky Super-Earth in a 2.2 day Orbit*, AJ, 157, 116K ([2019AJ....157..116K](#))
 - Livingston et al. (2019); *Spitzer Transit Follow-up of Planet Candidates from the K2 Mission*, AJ, 157, 102L ([2019AJ....157..102L](#))
 - Kosiarek et al. (2019); *Bright Opportunities for Atmospheric Characterization of Small Planets: Masses and Radii of K2-3b, c, and d and GJ3470 b from Radial Velocity Measurements and Spitzer Transits*, AJ, 157, 97K ([2019AJ....157...97K](#))
 - Bryan et al. (2019); *An Excess of Jupiter Analogs in Super-Earth Systems*, AJ, 157, 52B ([2019AJ....157...52B](#))
 - Wang et al. (2019); *HD 202772A: A Transiting Hot Jupiter around a Bright, Midly Evolved Star in a Visual Binary Discovered by TESS*, AJ, 157, 51W ([2019AJ....157...51W](#))
 - Labadie-Bartz et al. (2019); *KELT-22Ab: A Massive, Short-Period Hot Jupiter Transiting a Near-solar Twin*, ApJS, 240, 13L ([2019ApJS..240...13L](#))
 - Mawet et al. (2019); *Deep Exploration of Eps Eridani with Keck Ms-band Vortex Coronagraphy and Radial Velocities: Mass and Orbital Parameters of the Giant Exoplanet*, AJ, 157, 33M ([2019AJ....157...33M](#))
 - David et al. (2018); *Discovery of a Transiting Adolescent Sub-Neptune Exoplanet with K2*, AJ, 156, 302D ([2018AJ....156..302D](#))
 - Livingston et al. (2018); *Sixty Validated Planets from K2 Campaigns 5–8*, AJ, 156, 277L ([2018AJ....156..277L](#))
 - Weiss et al. (2018); *The California-Kepler Survey. VI. Kepler Multis and Singles Have Similar Planet and Stellar Properties Indicating a Common Origin*, AJ, 156, 254W ([2018AJ....156..254W](#))
 - Crossfield et al. (2018); *A TESS Dress Rehearsal: Planetary Candidates and Variables from K2 Campaign 17*, ApJS, 239, 5C ([2018ApJS..239...5C](#))
 - Peterson et al. (2018); *A 2 R_⊕ Planet Orbiting the Bright Nearby K Dwarf Wolf 503*, AJ, 156, 188P ([2018AJ....156..188P](#))
 - Van Eylen et al. (2018); *An asteroseismic view of the radius valley: stripped cores, not born rocky*, MNRAS, 479, 4786V ([2018MNRAS.479.4786V](#))
 - Brady et al. (2018); *Kepler-1656b: A Dense Sub-Saturn with an Extreme Eccentricity*, AJ, 156, 147B ([2018AJ....156..147B](#))
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