# **Benjamin James (BJ) Fulton**

NASA Exoplanet Science Institute / IPAC-Caltech Research Scientist / NN-EXPLORE Project Scientist (408) 528-4858

bfulton@caltech.edu www.benjaminfulton.com

#### 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**

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

# **Publication statistics**

- 9 first author & major contributions in 4 second author refereed publications
- 142 total refereed publications
- Contributions to 4 Nature publications
- 5882 citations (747 citations to first-author papers)
- h-index = 38

# Research Experience

- 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 <u>NN-EXPLORE program</u>, primarily overseeing the development of the pipeline and archive for the <u>NEID spectrograph</u>
- Developed an open source software package for the analysis of radial velocity time-series data written in object-oriented Python (<u>radvel.readthedocs.io</u>)
- 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 7 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 <u>Fulton et al. 2015a</u>, and <u>Fulton et al. 2016</u> announcing the discovery of 5 new low-mass planets orbing four nearby stars. These discoveries were made possible, in large part, by the APF facility.
- Worked extensively with collaborators at the Space Telescope Science Institute on a project to revolutionize the way that
  radial velocities are calculated from gas absorption cell spectroscopy
- 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 (<u>Howard & Fulton 2016</u>)

### **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 GI 411 system to perform a detailed characterization of the system of planets orbiting the 4<sup>th</sup> closest star to the sun (Hurt et al., in prep.)

### 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., in prep.)

### • 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., Fulton et al., and code release in prep.)

### 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

- 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)

#### **Hobbies and Interests**

- Auto racing
  - 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 <a href="http://apod.nasa.gov/apod/ap110826.html">http://apod.nasa.gov/apod/ap110826.html</a>)

## **Publication List**

#### First Author

- 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 Highprecision Radial Velocities from Noisy Spectra, ApJ, 810, 30 (2015ApJ...810...30F)
- Fulton, B.J. et al. (2015a); Three Planets Orbing 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)

#### Significant Contributions

 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 (<a href="http://dx.doi.org/10.1007/s11214-013-0019-1">http://dx.doi.org/10.1007/s11214-013-0019-1</a>) – 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

- 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)
- 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-NeptuneTransiting 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)
- Yahalomi 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 Highmetallicity 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); Discover 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<sub>⊕</sub> 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)
- Liang et al. (2018); Two Warm, Low-density Sub-Jovian Planets Orbiting Bright Stars in K2 Campaigns 13 and 14, AJ, 156, 127 (2018AJ....156..127Y)
- Petigura et al. (2018); Dynamics and Formation of the Near-resonant K2-24 System: Insights from Transit-timing Variations and Radial Velocities, AJ, 156, 89 (2018AJ....156...89P)
- Dressing et al. (2018); Characterizing K2 Candidate Planetary Systems Orbiting Low-mass Stars. III. A High Mass and Low Envelope Fraction for the Warm Neptune K2-55b, AJ, 156, 70 (2018AJ....156...70D)
- Liang et al. (2018); Planetary Candidates from K2 Campaign 16, AJ, 156, 22 (2018AJ....156...22Y)
- Yee et al. (2018); HAT-P-11: Discovery of a Second Planet and a Clue to Understanding Exoplanet Obliquities, AJ, 155, 255 (2018AJ...155..255Y)
- Curtis et al. (2018); K2-231 b: A Sub-Neptune Exoplanet Transiting a Solar Twin in Ruprecht 147, AJ, 155, 173C (2018AJ....155..173C)
- Bowler et al. (2018); Orbit and Dynamical Mass of the Late-T Dwarf GL 758 B, AJ, 155, 159B (2018AJ...155..159B)
- Hartman et al. (2018); HAT-TR-318-007: A Double-lined M Dwarf Binary with Total Secondary Eclipses Discovered by HATNet and Observed by K2, AJ, 155, 114H (2018AJ...155..114H)
- Johnson et al. (2018); KELT-21b: A Hot Jupiter Transiting the Rapidly Rotating Metal-poor Late-A Primary of a Likely Hierarchical Triple System, AJ, 155, 100J (2018AJ....155..100J)
- Petigura et al. (2018); The California-Kepler Survey. IV. Metal-rich Stars Host a Greater Diversity of Planets, AJ, 155, 89P (2018AJ...155...89P)
- Henning et al. (2018); HATS-50b through HATS-53b: Four Transiting Hot Jupiters Orbiting G-type Stars Discovered by the HATSouth Survey, AJ, 155, 79H (2018AJ....155...79H)
- Weiss et al. (2018); The California-Kepler Survey. V. Peas in a Pod: Planets in a Kepler Multi-planet System Are Similar in Size and Regularly Spaced, AJ, 155, 48W (2018AJ....155...48W)
- Petigura et al. (2018); Planet Candidates from K2 Campaigns 5–8 and Follow-up Optical Spectroscopy, AJ, 155, 21P (2018AJ....155...21P)
- Ciardi et al. (2018); K2-136: A Binary System in the Hyades Cluster Hosting a Neptune-sized Planet, AJ, 155, 10C (2018AJ....155...10C)
- Grunblatt et al. (2017); Seeing Double with K2: Testing Re-inflation with Two Remarkably Similar Planets around Red Giant Branch Stars, AJ, 154, 254 (2017AJ...154..254G)
- Dressing et al. (2017); Characterizing K2 Candidate Planetary Systems Orbiting Low-mass Stars. II. Planetary Systems Observed During Campaigns 1–7, AJ, 154, 207 (2017AJ....154...207D)
- Lund et al. (2017); KELT-20b: A Giant Planet with a Period of P ~ 3.5 days Transiting the V ~ 7.6 Early A Star HD 185603, AJ, 154, 194 (2017AJ....154..194L)

- Shporer et al. (2017); K2-114b and K2-115b: Two Transiting Warm Jupiters, AJ, 154, 188 (2017AJ....154...188S)
- Shporer et al. (2017); Three Statistically Validated K2 Transiting Warm Jupiter Exoplanets Confirmed as Low-mass Stars, ApJ, 847, 18 (2017ApJ...847L...18S)
- Christiansen et al. (2017); Three's Company: An Additional Non-transiting Super-Earth in the Bright HD 3167 System, and Masses for All Three, AJ, 154, 122 (2017AJ....154..122C)
- Johnson et al. (2017); The California-Kepler Survey. II. Precise Physical Properties of 2025 Kepler Planets and Their Host Stars, AJ, 154, 108 (2017AJ...154..108J)
- Petigura et al. (2017); The California-Kepler Survey. I. High-resolution Spectroscopy of 1305 Stars Hosting Kepler Transiting Planets, AJ, 154, 107 (2017AJ....154..107P)
- Sinukoff, E., et al. (2017); K2-66b and K2-106b: Two Extremely Hot Sub-Neptune-size Planets with High Densities, AJ, 153, 271 (2017AJ....153..271S)
- Weiss, L., et al. (2017); New Insights on Planet Formation in WASP-47 from a Simultaneous Analysis of Radial Velocities and Transit Timing Variations, AJ, 153, 265 (2017AJ....153..265W)
- McLeod, K., et al. (2017); KELT-18b: Puffy Planet, Hot Host, Probably Perturbed, AJ, 153, 263 (2017AJ....153...263M)
- Crossfield, I., et al. (2017); Two Small Transiting Planets and a Possible Third Body Orbiting HD 106315, AJ, 153, 255 (2017AJ...153..255C)
- Rappaport, S., et al. (2017); EPIC 220204960: A Quadruple Star System Containing Two Strongly Interacting Eclipsing Binaries, MNRAS, 467, 2 (2017MNRAS.467.2160R)
- Zheng, W., et al. (2017); Discovery and Follow-up Observations of the Young Type Ia Supernova 2016coj, ApJ, 841, 64Z (2017ApJ...841...64Z)
- Pepper, J., et al. (2017); KELT-11b: A Highly Inflated Sub-Saturn Exoplanet Transiting the V = 8 Subgiant HD 93396, AJ, 153, 215 (2017AJ...153..215P)
- Zhou, G., et al. (2017); HAT-P-67b: An Extremely Low Density Saturn Transiting an F-subgiant Confirmed via Doppler Tomography, AJ, 153, 211 (2017AJ....153..211Z)
- Stevens, D., et al. (2017); KELT-12b: A P~5 day, Highly Inflated Hot Jupiter Transiting a Mildly Evolved Hot Star, AJ, 153, 178 (2017AJ....153..178S)
- Petigura, E., et al. (2017); Four Sub-Saturns with Dissimilar Densities: Windows into Planetary Cores and Envelopes, AJ, 153, 142 (2017AJ...153..142P)
- Oberst, T., et al. (2017); KELT-16b: A Highly Irradiated, Ultra-short Period Hot Jupiter Nearing Tidal Disruption, AJ, 153, 97 (2017AJ....153...97O)
- De Wit, J., et al. (2017); Planet-induced Stellar Pulsations in HAT-P-2's Eccentric System, ApJ, 836, 17 (2017ApJ, 836, 17D)
- David, T., et al. (2017); A Transient Transit Signature Associated with the Young Star RIK-210, ApJ, 835, 168 (2017ApJ...835...168D)
- Sinukoff, E., et al. (2017); Mass Constraints of the WASP-47 Planetary System from Radial Velocities, AJ, 153, 70 (2017AJ...153...70S)
- Rappaport, S., et al. (2017); EPIC 220204960: A Quadruple Star System Containing Two Strongly Interacting Eclipsing Binaries, MNRAS (2017MNRAS.tmp..145R)
- Bayliss, D., et al. (2017); EPIC 201702477b: A Transiting Brown Dwarf from K2 in a 41 day Orbit, AJ, 153, 15 (2017AJ...153...15B)
- Samuel, K., et al. (2016); K2-97b: A (Re-?)Inflated Planet Orbiting a Red Giant Star, AJ, 152, 185 (2016AJ....152..185G)
- Hartman, J., et al. (2016); HAT-P-65b and HAT-P-66b: Two Transiting Inflated Hot Jupiters and Observational Evidence for the Reinflation of Close-in Giant Planets, AJ, 152, 182 (2016AJ....152..182H)
- Zhou, G., et al. (2016); KELT-17b: A Hot-Jupiter Transiting an A-star in a Misaligned Orbit Detected with Doppler Tomography, AJ, 152, 136 (2016AJ....152..136Z)
- Crossfield, I. J., et al. (2016); 197 Candidates and 104 Validated Planets in K2's First Five Fields, ApJS, 226, 7 (2016ApJS, 226,...7C)
- Sinukoff, E. et al. (2016); Eleven Multiplanet Systems from K2 Campaigns 1 and 2 and the Masses of Two Hot Super-Earths, ApJ, 827, 78 (2016ApJ...827...78S)
- Ciceri, S. et al. (2016); HATS-15b and HATS-16b: Two Massive Planets Transiting Old G Dwarf Stars, PASP, 128, 4401 (2016PASP..128g4401C)
- Wong, I. et al. (2016); 3.6 and 4.5 

  µm Spitzer Phase Curves of the Highly Irradiated Hot Jupiters WASP-19b and HAT-P-7b, ApJ, 823, 122 (2016ApJ...823..122W)
- Bryan, M. L. et al. (2016); Statistics of Long Period Gas Giant Planets in Known Planetary Systems, ApJ, 821, 89 (2016ApJ...821...89B)
- Buhler, P. B. et al. (2016); Dynamical Constraints on the Core Mass of Hot Jupiter HAT-P-13b, ApJ, 821, 26 (2016ApJ...821...26B)
- Weiss, L. et al. (2016); Revised Masses and Densities of the Planets around Kepler-10, ApJ, 819, 83 (2016ApJ...819...83W)

- Kirk, B. et al. (2016); Kepler Eclipsing Binary Stars. VII. The Catalog of Eclipsing Binaries Found in the Entire Kepler Data Set, AJ, 151, 68 (2016AJ...151...68K)
- Schlieder, J. E. et al. (2016); Two Small Temperate Planets Transiting Nearby M Dwarfs in K2 Campaigns 0 and 1, ApJ, 818, 87 (2016ApJ...818...87S)
- Petigura, E. A. et al. (2016); Two Transiting Low Density Sub-Saturns from K2, ApJ, 818, 36 (2016ApJ...818...36P)
- Eastman, J. D. et al. (2016); KELT-4Ab: An Inflated Hot Jupiter Transiting the Bright (V ~ 10) Component of a Hierarchical Triple, AJ, 151, 45 (2016AJ...151...45E)
- Hartman, J. D. et al. (2015); HAT-P-50b, HAT-P-51b, HAT-P-52b, and HAT-P-53b: Three Transiting Hot Jupiters and a Transiting Hot Saturn From the HATNet Survey, AJ, 150, 168 (2015AJ....150..168H)
- Zhou, G. et al. (2015); A High Obliquity Orbit for the Hot-Jupiter HATS-14b Transiting a 5400K Star, ApJ, 814, 16 (2015ApJ...814L..16Z)
- Bakos, G. A. et al. (2015); HATS-7b: A Hot Super Neptune Transiting a Quiet K Dwarf Star, ApJ, 813, 111 (2015ApJ...813...111B)
- Wong, I. et al. (2015); 3.6 and 4.5 μm Phase Curves of the Highly Irradiated Eccentric Hot Jupiter WASP-14b, ApJ, 811, 122 (2015ApJ...811..122W)
- Kammer, J. A. et al. (2015); Spitzer Secondary Eclipse Observations of Five Cool Gas Giant Planets and Empirical Trends in Cool Planet Emission Spectra, ApJ, 810, 118 (2015ApJ...810..118K)
- Bayliss, D. et al. (2015); HATS-8b: A Low-density Transiting Super-Neptune, AJ, 150, 49 (2015AJ...150...49B)
- Bieryla, A. et al. (2015); KELT-7b: A Hot Jupiter Transiting a Bright V = 8.54 Rapidly Rotating F-star, AJ, 150, 12 (2015AJ....150...12B)
- Demming, D. et al. (2015); Spitzer Secondary Eclipses of the Dense, Modestly-irradiated, Giant Exoplanet HAT-P-20b Using Pixel-level Decorrelation, ApJ, 805, 132 (2015ApJ...805..132D)
- Ruprecht, J. D. et al. (2015); 29 November 2011 stellar occultation by 2060 Chiron: Symmetric jet-like features, Icarus, 252, 271 (2015Icar..252..271R)
- Crossfield, I. J. M. et al. (2015); A Nearby M Star with Three Transiting Super-Earths Discovered by K2, ApJ, 804, 10 (2015ApJ...804...10C)
- Graham, M. L. et al. (2015); Time-Varying Potassium in High-Resolution Spectra of the Type la Supernova 2014j, ApJ, 801, 136 (2015ApJ...801..136G)
- Zhao, Ming et al. (2014); Characterization of the Atmosphere of the Hot Jupiter HAT-P-32Ab and the M-dwarf Companion HAT-P-32B, ApJ, 796, 115 (2014ApJ...796..115Z)
- Wong, lan et al. (2014); Constraints on the Atmospheric Circulation and Variability of the Eccentric Hot Jupiter XO-3b, ApJ, 794, 134 (2014ApJ...794..134W)
- Biddle, Lauren I. et al. (2014); Warm ice giant GJ 3470b II. Revised planetary and stellar parameters from optical to near-infrared transit photometry, MNRAS, 443, 1810 (2014MNRAS, 443.1810B)
- Hartman, J. D. et al. (2014); HAT-P-44b, HAT-P-45b, and HAT-P-46b: Three Transiting Hot Jupiters in Possible Multiplanet Systems, ApJ, 791, 89 (2014AJ....147..128H)
- Gaidos, E. et al. (2014); Trawling for transits in a sea of noise: a search for exoplanets by analysis of WASP optical light curves and follow-up (SEAWOLF), MNRAS, 437, 3133 (2014MNRAS.437.3133G)
- Bryan, Marta L. et al. (2014); Erratum: "Qatar-2: A K Dwarf Orbited by a Transiting Hot Jupiter and a More Massive Companion in an Outer Orbit", ApJ, 782, 121, (2014ApJ...782..121B)
- Collins, Karen A. et al. (2014); KELT-6b: A P ~ 7.9 Day Hot Saturn Transiting a Metal-poor Star with a Long-period Companion, AJ, 147, 39 (2014AJ...147...39C)
- Brown, T. M. et al. (2013); Las Cumbres Observatory Global Telescope Network, PASP, 125, 931 (2013PASP..125.1031B)
- Hartman, J. D. et al. (2013); HAT-P-44b, HAT-P-45b, and HAT-P-46b: Three Transiting Hot Jupiters in Possible Multi-Planet Systems, arXiv1308.2937 (2013arXiv1308.2937H, submitted to AJ)
- Collins, K. A. et al. (2013); KELT-6b: A P~7.9 d Hot Saturn Transiting a Metal-Poor Star with a Long-Period Companion, arXiv1308.2296 (2013arXiv1308.2296C, submitted to AJ)
- Quintana, E. V. et al. (2013); Confirmation of Hot Jupiter Kepler-41b via Phase Curve Analysis, arXiv1303.0858 (2013arXiv1303.0858Q, Accepted to ApJ)
- Steinfadt, J. D. et al. (2012); A Search for Pulsations in Helium White Dwarfs, 2012 PASP, 124, 911 (2012PASP..124...1S)
- Boisse, I. et al. (2012); HAT-P-42b and HAT-P-43b. Two Inflated Transiting Hot Jupiters from the HATNet Survey, A&A 558, A86 (2013A&A...558A..86B)
- Siverd, R., et al. (2012); KELT-1b: A Strongly Irradiated, Highly Inflated, Short Period, 27 Jupiter-mass Companion Transiting a Mid-F Star, ApJ, 761, 123 (2012ApJ...761..123S)
- Barclay, T. et al. (2012); Photometrically Derived Masses and Radii of the Planet and Star in the TrES-2 System, ApJ, 761, 53 (2012ApJ...761...53B)
- Maguire, K. et al. (2012); Hubble Space Telescope studies of low-redshift Type la supernovae: evolution with redshift and ultraviolet spectral trends, MNRAS, 426, 2359 (2012MNRAS, 426, 2359M)

- Pepper, J. et al. (2012); KELT-3b: A Hot Jupiter Transiting a V=9.8 Late-F Star, ApJ, 773, 64, (2013ApJ...773...64P)
- Hartman, J.D., et al. (2012); HAT-P-39b-HAT-P-41b: Three Highly Inflated Transiting Hot Jupiters, AJ, 144, 139 (2012AJ...144..139H)
- Law, N. et al. (2012); Three New Eclipsing White-dwarf-M-dwarf Binaries Discovered in a Search for Transiting Planets around M-dwarfs, ApJL, 757, 133 (2012ApJ...757..133L)
- Beatty, T. et al. (2012); KELT-2Ab: A Hot Jupiter Transiting the Bright (V = 8.77) Primary Star of a Binary System, ApJ, 756, 39 (2012ApJ...756L..39B)
- van Eyken, J. et al. 2012; The PTF Orion Project: A Possible Planet Transiting a T-Tauri Star, ApJ, 755, 42 (2012ApJ...755...42V)
- Bryan, M. et al. (2011); Qatar-2: A K Dwarf Orbited by a Transiting Hot Jupiter and a More Massive Companion in an Outer Orbit, ApJ, 750, 84 (2012ApJ...750...84B)
- Arcavi, I. et al. (2011); SN 2011dh: Discovery of a Type IIb Supernova from a Compact Progenitor in the Nearby Galaxy M51, ApJL, 742, L18 (2011ApJ...742L..18A)
- Levitan, D. et al. (2011); PTF1 J071912.13+485834.0: An Outbursting AM CVn System Discovered by a Synoptic Survey, ApJ, 739, 68 (2011ApJ...739...68L)
   Shporer, A. et al. (2010); Ground-based Multisite Observations of Two Transits of HD 80606b, ApJ, 722, 880 (2010ApJ...722..880S)