

# Jessie Christiansen — Curriculum Vitae

NASA Exoplanet Science Institute, California Institute of Technology  
Mail Code 100-22, 770 South Wilson Avenue, Pasadena, CA, USA 91125  
Phone: +1 626 395 1277 · Email: jessie.christiansen@caltech.edu

## Employment

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**2018 – present: Research Scientist, NASA Exoplanet Archive Deputy Science Lead**

NASA Exoplanet Science Institute/California Institute of Technology, Pasadena, CA, USA

**2013 – 2018: Staff Scientist**

NASA Exoplanet Science Institute/California Institute of Technology, Pasadena, CA, USA

**2013 – 2017: Kepler Participating Scientist**

NASA Exoplanet Science Institute/California Institute of Technology, Pasadena, CA, USA

**2010 – 2013: Staff Scientist, Kepler Science Office**

NASA Ames Research Center/SETI Institute, Moffett Field, CA, USA

**2008 – 2010: Postdoctoral Research Fellow**

Harvard-Smithsonian Center for Astrophysics, Boston, MA, USA

**2004 – 2007: Postgraduate Teaching Assistant**

University of New South Wales, Sydney, NSW, Australia

## Education

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**2007: PhD (Astronomy)**, University of New South Wales, Sydney, Australia

**2003: BSc Hons (Astronomy, First Class)**, Australian National University, Australia

**2002: BSc (Advanced Studies)**, Griffith University, Brisbane, Australia

## Selected Awards and Achievements

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2018: NASA Exceptional Engineering Achievement Medal

2018: Outstanding Young Alumnus, Griffith University

2018: University of Southern Queensland Research Giant

2013–2017: Kepler Participating Scientist

2010: NASA Group Achievement Award to the Kepler Science Team

2009: NASA Group Achievement Award to the EPOXI Flight and Science Teams

2008: Honourable mention, Outstanding PhD Thesis Prize, Astronomical Society of Australia

2007: Best Student Talk, Astronomical Society of Australia

2006: Best Student Poster, Astronomical Society of Australia

2004–2007: Australian Postgraduate Award Scholarship, Australian National Government

2003: Honours Scholarship, Australian National University

2003: Honours Top-Up Scholarship, RSAA, Australian National University

2002: Science Medal (highest achieving science graduate), Griffith University

2002: Joe Segal Prize (highest achieving graduate from the Bachelor of Science with Advanced Studies), Griffith University

2000, 2001, 2002: Awards for Academic Excellence, Griffith University

2000–2002: Academic Excellence Scholarship, Griffith University

## Selected Refereed Publications

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**Christiansen, J. L.**, Crossfield, I. J. M., Barentsen, G., et al. 2018, AJ, 155, 57, *The K2-138 System: A Near-resonant Chain of Five Sub-Neptune Planets Discovered by Citizen Scientists*

**Christiansen, J. L.**, Vanderburg, A., Burt, J., et al. 2017, AJ, 154, 122, *Three's Company: An Additional Non-transiting Super-Earth in the Bright HD 3167 System, and Masses for All Three Planets*

- Christiansen, J. L.**, Clarke, B. D., Burke, C. J., et al. 2016, ApJ, 828, 99, *Measuring Transit Signal Recovery in the Kepler Pipeline. III. Completeness of the Q1-Q17 DR24 Planet Candidate Catalogue with Important Caveats for Occurrence Rate Calculations*
- Christiansen, J. L.**, Clarke, B. D., Burke, C. J., et al. 2015, ApJ, 810, 95, *Measuring Transit Signal Recovery in the Kepler Pipeline II: Detection Efficiency as Calculated in One Year of Data*
- Burke, C. J., **Christiansen, J. L.**, Mullally, F., et al. 2015, ApJ, 809, 8, *Terrestrial Planet Occurrence Rates for the Kepler GK Dwarf Sample*
- Christiansen, J. L.**, Clarke, B. D., Burke, C. J. et al. 2013, ApJS, 207, 35, *Measuring Transit Signal Recovery in the Kepler Pipeline I: Individual Events*
- Hopkins, P. F. & **Christiansen, J. L.** 2013, ApJ, 776, 48, *Turbulent Disks are Never Stable: Fragmentation and Turbulence-promoted Planet Formation*
- Christiansen, J. L.**, Jenkins, J. M., Barclay, T. S. et al. 2012, PASP, 124, 1279, *The Derivation, Parameters and Value of Kepler's Combined Differential Photometric Precision*
- Christiansen, J. L.**, Ballard, S., Charbonneau, D., et al. 2011, ApJ, 710, 97, *Studying the atmosphere of the exoplanet HAT-P-7b via secondary eclipse measurements with EPOXI, Spitzer and Kepler*
- Ballard, S., **Christiansen, J. L.**, Charbonneau, D. et al. 2011, ApJ, 732, 41, *A Search for Additional Planets in Five of the Exoplanetary Systems Studied by the NASA EPOXI Mission*
- Christiansen, J. L.**, Ballard, S., Charbonneau, D. et al. 2011, ApJ, 726, 94, *System Parameters, Transit Times, and Secondary Eclipse Constraints of the Exoplanet Systems HAT-P-4, TrES-2, TrES-3, and WASP-3 from the NASA EPOXI Mission of Opportunity*
- Ballard, S., **Christiansen, J. L.**, Charbonneau, D. et al. 2010, ApJ, 716, 1047, *A Search for Additional Planets in the NASA EPOXI Observations of the Exoplanet System GJ 436*
- Christiansen, J. L.**, Drekas, A., Kiss, L. L., et al. 2008, MNRAS, 385, 1749, *The University of New South Wales Extrasolar Planet Search: a catalogue of variable stars from fields observed between 2004 and 2007*
- Christiansen, J. L.**, Drekas, A., Ashley, M. C. B., et al. 2007, MNRAS, 382, 239, *The first high-amplitude  $\delta$  Scuti star in an eclipsing binary system*

## Selected Colloquia and Invited Talks

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### 2018

- Colloquium, California Institute of Technology, Pasadena CA, USA
- Keynote talk, 107th Annual Meeting of the AAVSO, Flagstaff AZ, USA
- Colloquium, NRC Herzberg, UBC (Vancouver) and University of Victoria, Canada
- Invited talk, ExSoCal 2018, Pasadena CA, USA
- Invited talk, Sagan Exoplanet Summer Workshop, Pasadena CA, USA
- Invited talk, Space on the Hill: Tools for Hunting Exoplanets, Washington DC, USA
- Invited talk, NASA Social TESS Mission Overview, Cape Canaveral FL, USA
- Olowin Physics and Astronomy Lecturer, St Mary's College of California, Moraga CA, USA
- Invited talk, American Association for the Advancement of Science, Austin TX, USA
- Press panelist, American Astronomical Society, National Harbor MD, USA

### 2017

- Invited talk, Franco-Australian Astrobiology & Exoplanet Workshop, ACT, Australia
- Seminar, University of Toledo, Ohio, USA
- Colloquium, Carnegie Observatories, CA, USA
- Invited talk, Exoclipse: Exploring New Worlds in the Shade, ID, USA
- Invited talk, Innovation Speaker Series, CA, USA
- Invited talk, Society of Astronomical Sciences Annual Symposium, CA, USA
- Invited talk, Greater IPAC Science Symposium, CA, USA
- Seminar, Earth, Planetary & Space Sciences, UCLA, CA, USA
- Seminar, NASA Goddard Space Flight Center, MD, USA
- Invited talk, K2/TESS Special Session, AAS 229, TX, USA

## 2016

Invited talk, Hotwiring the Transient Universe 5, Villanova University, PA, USA  
Invited talk, Sagan Summer Workshop, CA, USA  
Colloquium, Cal State Northridge, CA, USA  
Seminar, Physics & Astronomy, Cal Poly Pomona, CA, USA

## 2015

Invited talk, 5th Australian Exoplanet Workshop, NSW, Australia  
Invited talk, K2 Science Conference, CA, USA  
Invited talk, Sagan Summer Workshop, CA, USA

## Successful Recent Proposals as PI

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**2018–2020:** Astrophysics Data Analysis Program (\$640k), *Towards a Comprehensive Understanding of Planet Occurrence Rates: Extending the Kepler Legacy Across a Wide Stellar Parameter Space with K2* (17-ADAP17-0263)

**2018:** NASA Spitzer Director's Discretionary Time (12 hours), *Extending and Characterizing an Exoplanet System in a Pristine Chain of Resonances*

**2018A:** Palomar 200-inch (5 nights), *The Elephant in the Room: Correcting Kepler Occurrence Rates for Stellar Multiplicity*

**2013–2017:** Kepler Participating Scientists Cycle 3 Program (\$193k), *Towards eta-Earth: Characterizing the detection rate of small planets in the Kepler pipeline* (12-KPS12-0026)

**2014B:** Palomar 200-inch (1 night), *The First Characterisation of a Binary System with Planets Detected Around Both Stars*

## Community Service

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NExSS steering committee member, 2018–present

Exoplanet Program Analysis Group (ExoPAG) Executive Committee member, 2018–present

TESS Follow-up Observing Program steering committee member, 2017–present

Caltech Women in Physics, Maths and Astronomy (WiPMA) faculty advisor, 2017–present

Caltech Women Mentoring Women group leader, 2017–present

IPAC seminar series organiser, 2014–2018

SOC member; Sagan Summer Workshop, July 2018, CA, USA

LOC member; Know Thy Star, Know Thy Planet, October 2017, CA, USA

SOC member; Kepler/K2 Science Conference IV, June 2017, CA, USA

SOC member; Sagan Summer Workshop, July 2016, CA, USA

SOC chair; ExSoCal 2016, September 2016, CA, USA

SOC chair; ExSoCal 2015, September 2015, CA, USA

IPAC Visiting Graduate Student Fellowship reviewer (2015, 2016)

NASA XRP review panelist (2014, 2017)

NASA Postdoctoral Program Review (2014)

NASA HST review panelist (2016)

NASA Spitzer review panelist (2016)

Kepler Guest Observer Office technical reviewer (2012)

Referee for Nature Astronomy, MNRAS, ApJ, AJ, A&A, and Astronomy & Computing