

## Brian Jackson

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### Education

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Ph.D. Planetary Sciences U of AZ 2009 May  
– Advisor: Prof. Richard Greenberg  
– Dissertation Title: “Tidal Evolution of Extra-Solar Planets”  
B.S. (Summa cum Laude) Physics Georgia Institute of Technology 2004 May

### Positions

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Assistant Prof., Boise State Physics 2014 - Present  
Carnegie DTM Astronomy Postdoctoral Fellow 2011-2014  
Instructor, U of MD Astronomy Dept. 2010  
NASA internship mentor/geology field trip leader 2010, 2011  
NASA Postdoctoral Program Fellow, NASA’s Goddard 2009-2011  
NASA Earth and Space Sciences Graduate Fellow (NESSF), U of AZ 2008-2009  
Graduate Research Associate, U of AZ 2004-2008  
Georgia Space Grant Fellow, Jet Propulsion Lab 2004  
Caltech Summer Undergraduate Research Fellow, Jet Propulsion Lab 2003

### Funding

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“Dust Devil Survey Using an Instrumented UAV”, NASA Idaho Space Grant consortium 2018  
– Proposal PI: Brian Jackson, Boise State University  
– Program Point-of-Contact: Susie Johnson, [susiej@uidaho.edu](mailto:susiej@uidaho.edu)  
– Total Budget: \$25,000  
“2017 Idaho Eclipse”, Boise State Pony Up Crowd-Funding Campaign Spring 2017  
<https://ponyup.boisestate.edu/project/5060>  
– Proposal PI: Brian Jackson, Boise State University  
– Program Point-of-Contact: Cara Walker, [carawalker@boisestate.edu](mailto:carawalker@boisestate.edu)  
– Total Budget: \$10,798  
“Unstable Roche-Lobe Overflow of Gaseous Planets”, NASA’s XRP 2017-2019  
– Proposal PI: Brian Jackson, Boise State University  
– Program Point-of-Contact: Christina Richey, [christina.r.richey@NASA.gov](mailto:christina.r.richey@NASA.gov)  
– Total Budget: \$165,864  
“Bring Back Our Observatory”, Boise State Pony Up Crowd-Funding Campaign Fall 2015  
<http://ponyup.boisestate.edu/observatory>  
– Proposal PI: Brian Jackson, Boise State University  
– Program Point-of-Contact: Cara Walker, [carawalker@boisestate.edu](mailto:carawalker@boisestate.edu)  
– Total Budget: \$10,000

- “Fossil Cores in the *Kepler* Data”, NASA’s Astrophys. Data Anal. Program 2014-2018
- Proposal PI: Brian Jackson, Boise State University
  - Program Point-of-Contact: Doug Hudgins, Douglas.M.Hudgins@nasa.gov
  - Total Budget: \$271,200

### Professional and University Service Projects

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- Division of Planetary Sciences 2018 Meeting, Scientific Organizing Committee Member
- Thesis Committee Member for Johnathan Ahlers (PhD), U of ID, Physics Fall 2018
- Thesis title: “Spin-Orbit Misalignment of Planets Orbiting High-Mass Stars: Observations and Techniques Using NASA’s Kepler Telescope”
- Division of Planetary Sciences 2017 Meeting, Local Organizing Committee Member
- Developed new University Foundations course Summer 2018 - Fall 2018
- Boise State Teaching Scholars Fellow Fall 2017 - Spring 2018
- Thesis Committee Member for Shannon Mackenzie (PhD), U of ID, Physics Fall 2017
- Thesis title: “Complex hydrocarbons in the Saturn system”
- Co-Chair, Physics Dept. Seminar Series Fall 2014 - Present
- Panel and External reviewer for NASA ROSES, NSF Astronomy/Astrophysics, Fonds de recherche du Qubec - Nature et technologies
- Manuscript Referee for Astrophysical Journal, Planetary Science, Astrobiology, Nature, Science, Celestial Mechanics and Dynamical Astronomy, Monthly Notices of the Royal Astronomical Society
- Reviewer for *Comparative Climatology of Terrestrial Planets*, UA Press
- Journal Club organizer at Carnegie DTM
- Library Committee member at Carnegie DTM
- Exoplanet and Astrobiology Journal Club founder at NASA Goddard
- External Committee Member/Advisor for Nicole Thom (MS), U of ND, Space Sciences 2012
- Thesis title: “Atmospheric Escape and Orbital Evolution of Exoplanets”

### Public Outreach and Education

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- STEM Teacher Space Science Summer 2019 Workshop Summer 2018 - Present
- Organizer of Boise State Physics First Friday Astronomy Public Events Summer 2016 - Present
- Pony Up Crowd-Funding campaign (\$11k) for regional solar eclipse outreach Spring 2017
- <https://ponyup.boisestate.edu/project/5060>
- Pony Up Crowd-Funding campaign (\$10k) to refurbish on-Campus observatory Fall 2015
- <https://ponyup.boisestate.edu/observatory>
- Organized \$16k+ of telescope donations
- Panelist for discussion of science and theater in “Cosmic Conversations” 2016 Feb
- American Assoc. of Physics Teachers New Faculty Workshop, College Park MD 2015 Jun
- Board Member for Montgomery County MD Science Fair 2013
- Judge for Montgomery County MD Science Fair 2012, 2013
- Participant in several science documentaries 2011 Aug
- Astronomy partner with Towson U.’s Project ASTRO 2011-2012
- Astronomy partner with U of AZ Project ASTRO 2005-2006

Regular contributor to “Astronomy” Magazine’s “Ask Astro”  
 Professional NASA media training  
 Numerous press releases, e.g. “The Mysterious Roving Rocks of Racetrack Playa”

### Student Research Assistants

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Michelle Szurgot (BSU) – Terrestrial & Martian Dust Devils	2018 - Present
Samantha Johnson (BSU) – Short-Period Exoplanets from the Kepler Mission	2017 - Present
Wesley Sandidge (BSU) – Eclipse Variability as Observed by the Kepler Mission	2016 - Present
Simon Roy (BSU) – Unstable Roche-Lobe Overflow of Short-Period Exoplanets	2016 - 2017
Steven Kreyche (BSU) – Eclipse Variability as Observed by the Kepler Mission	2016 - 2017
Went on to U of ID as physics grad	
Karan Davis (BSU) – Terrestrial & Martian Dust Devils	2016 - 2018
Went on to Puget Sound Power	
Jennifer Briggs (BSU) – Eclipse Variability as Observed by the Kepler Mission	2015
Jacob Sabin (BSU) – Adapting the Titius-Bode Law to Exoplanet Systems	2015
Elizabeth Kandziolka – Eclipse Variability as Observed by the Kepler Mission	2015
Nathan Grigsby (BSU) – Terrestrial & Martian Dust Devils	2015
Emily Jensen (BSU) – Stable Roche-Lobe Overflow of Short-Period Exoplanets	2014 - 2016
Went on to U of WY as astronomy grad	
Ben Knipping (BSU) – Short-Period Exoplanets from the Kepler Mission	2014 - 2015
David Weiss (College of Charleston) – Terrestrial & Martian Basalt Column Morphology	2011
Went on to Brown as geology grad	
Nicole Thom (U of ND) – Evaporative Mass Loss from Short-Period Exoplanets	2010
Went on to Harvard CfA as software developer	
Kynan Rilee (Princeton)	2010

**Publications** – Jackson in **Bold**; student authors in [blue](#).

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### Refereed Articles

- J. W. Barnes, S. M. MacKenzie, E. F. Young, L. E. Trouille, S. Rodriguez, T. Cornet, **B. JACKSON**, M. Ádámkovics, C. Sotin, & J. M. Soderblom. Spherical radiative transfer in c++ (srctc++): A parallel monte carlo radiative transfer model for titan. *The Astronomical Journal*, 155(6):264, 2018.
- R. Heller, M. Hippke, & **B. JACKSON**. Pyose: Orbital sampling effect (ose) simulator. *Astrophysics Source Code Library*, 2018.
- B. JACKSON**, E. R. Adams, R. Heller, & M. Endl. Investigating planet formation and evolutionary processes with short-period exoplanets. *arXiv preprint arXiv:1803.10293*, 2018a.
- B. JACKSON**, R. Lorenz, & [Davis, K.](#) A framework for relating the structures and recovery statistics in pressure time-series surveys for dust devils. *Icarus*, 299:166–174, 2018b.
- B. JACKSON**, R. Lorenz, [Davis, K.](#), & B. Lipple. Using an instrumented drone to probe dust devils on oregons alvord desert. *Remote Sensing*, 10(1):65, 2018c.
- R. D. Lorenz, **B. JACKSON**, & P. D. Lanagan. A timelapse camera dataset and markov model of dust devil activity at eldorado playa, nevada, usa. *Aeolian Research*, 33:33–43, 2018.
- E. R. Adams, **B. JACKSON**, M. Endl, W. D. Cochran, P. J. MacQueen, D. A. Duvvuri, R. Jensen-Clem, M. Salama, C. Ziegler, C. Baranec et al. Ultra-short-period planets in k2 with companions: A double transiting system for epic 220674823. *The Astronomical Journal*, 153(2):82, 2017.
- B. JACKSON**, P. Arras, K. Penev, S. Peacock, & P. Marchant. A new model of roche lobe overflow for short-period gaseous planets and binary stars. *The Astrophysical Journal*, 835(2):145, 2017a.
- B. JACKSON**, [Jensen, E.](#), S. Peacock, P. Arras, & K. Penev. Erratum to: Tidal decay and stable roche-lobe overflow of short-period gaseous exoplanets. *Celestial Mechanics and Dynamical Astronomy*, 129(4):553–554, 2017b.
- E. R. Adams, **B. JACKSON**, & M. Endl. Ultra-short-period planets in k2 superpig results for campaigns 0–5. *The Astronomical Journal*, 152(2):47, 2016.
- R. Heller, M. Hippke, & **B. JACKSON**. Modeling the orbital sampling effect of extrasolar moons. *The Astrophysical Journal*, 820(2):88, 2016.
- B. JACKSON**, [Jensen, E.](#), S. Peacock, P. Arras, & K. Penev. Tidal decay and stable roche-lobe overflow of short-period gaseous exoplanets. *Celestial Mechanics and Dynamical Astronomy*, 126(1-3):227–248, 2016.
- B. JACKSON** & R. Lorenz. A multiyear dust devil vortex survey using an automated search of pressure time series. *Journal of Geophysical Research: Planets*, 120(3):401–412, 2015. ISSN 2169-9100. 2014JE004712.
- R. D. Lorenz & **B. JACKSON**. Dust devils and dustless vortices on a desert playa observed with surface pressure and solar flux logging. *GeoResJ*, 5:1–11, 2015.
- R. Luger, R. Barnes, E. Lopez, J. Fortney, **B. JACKSON**, & V. Meadows. Habitable Evaporated Cores: Transforming Mini-Neptunes into Super-Earths in the Habitable Zones of M Dwarfs. *Astrobiology*, 15:57–88, 2015.
- G. Vixie, J. W. Barnes, **B. JACKSON**, S. Rodriguez, S. Le Mouélic, C. Sotin, S. MacKenzie, & P. Wilson. Possible temperate lakes on Titan. *Icarus*, 257:313–323, 2015.
- R. D. Lorenz & **B. JACKSON**. Declining rock movement at Racetrack Playa, Death Valley National Park: An indicator of climate change? *Geomorphology*, 211:116–120, 2014.

- R. D. Lorenz, J. M. Norris, **B. JACKSON**, R. D. Norris, J. W. Chadbourne, & J. Ray. Trail formation by ice-shoved "sailing stones" observed at Racetrack Playa, Death Valley National Park. *Earth Surface Dynamics Discussions*, 2:1005–1022, 2014.
- R. D. Norris, J. M. Norris, R. D. Lorenz, J. Ray, & **B. JACKSON**. Sliding Rocks on Racetrack Playa, Death Valley National Park: First Observation of Rocks in Motion. *PLOS ONE*, 9:8, 2014.
- K. Penev, M. Zhang, & **B. JACKSON**. POET: A Model for Planetary Orbital Evolution Due to Tides on Evolving Stars. *PASP*, 126:553–564, 2014.
- J. W. Barnes, J. C. van Eyken, **B. JACKSON**, D. R. Ciardi, & J. J. Fortney. Measurement of Spin-orbit Misalignment and Nodal Precession for the Planet around Pre-main-sequence Star PTFO 8-8695 from Gravity Darkening. *ApJ*, 774:53, 2013.
- B. JACKSON**, C. C. Stark, E. R. Adams, J. Chambers, & D. Deming. A Survey for Very Short-period Planets in the Kepler Data. *ApJ*, 779:165, 2013.
- C. C. Stark, A. P. Boss, A. J. Weinberger, **B. JACKSON**, M. Endl, W. D. Cochran, M. Johnson, C. Caldwell, E. Agol, E. B. Ford, J. R. Hall, K. A. Ibrahim, & J. Li. A Search for Exozodiacal Clouds with Kepler. *ApJ*, 764:195, 2013.
- D. Deming, J. D. Fraine, P. V. Sada, N. Madhusudhan, H. A. Knutson, J. Harrington, J. Blečić, S. Nymeyer, A. M. S. Smith, & **B. JACKSON**. Infrared Eclipses of the Strongly Irradiated Planet WASP-33b, and Oscillations of Its Host Star. *ApJ*, 754:106, 2012.
- B.-O. Demory, M. Gillon, S. Seager, B. Benneke, D. Deming, & **B. JACKSON**. Detection of Thermal Emission from a Super-Earth. *ApJ*, 751:L28, 2012.
- B. JACKSON**, N. K. Lewis, J. W. Barnes, L. Drake Deming, A. P. Showman, & J. J. Fortney. The EVIL-MC Model for Ellipsoidal Variations of Planet-hosting Stars and Applications to the HAT-P-7 System. *ApJ*, 751:112, 2012.
- K. Penev, **B. JACKSON**, F. Spada, & N. Thom. Constraining Tidal Dissipation in Stars from the Destruction Rates of Exoplanets. *ApJ*, 751:96, 2012.
- P. V. Sada, D. Deming, D. E. Jennings, **B. JACKSON**, C. M. Hamilton, J. Fraine, S. W. Peterson, F. Haase, K. Bays, A. Lunsford, & E. O’Gorman. Extrasolar Planet Transits Observed at Kitt Peak National Observatory. *PASP*, 124:212–229, 2012.
- D. Deming, P. V. Sada, **B. JACKSON**, S. W. Peterson, E. Agol, H. A. Knutson, D. E. Jennings, F. Haase, & K. Bays. Kepler and Ground-based Transits of the Exo-Neptune HAT-P-11b. *ApJ*, 740:33, 2011.
- R. D. Lorenz, **B. JACKSON**, J. W. Barnes, J. N. Spitale, & J. M. Keller. Ice rafts not sails: Floating the rocks at Racetrack Playa. *American Journal of Physics*, 79(1):2361, 2011a.
- R. D. Lorenz, **B. JACKSON**, J. W. Barnes, J. N. Spitale, J. Radebaugh, & K. H. Baines. Meteorological Conditions at Racetrack Playa, Death Valley National Park: Implications for Rock Production and Transport. *Journal of Applied Meteorology and Climatology*, 50:2361, 2011b.
- R. Barnes, S. N. Raymond, R. Greenberg, **B. JACKSON**, & N. A. Kaib. CoRoT-7b: Super-Earth or Super-Io? *ApJ*, 709:L95–L98, 2010.
- J. H. Debes & **B. JACKSON**. Too Little, Too Late: How the Tidal Evolution of Hot Jupiters Affects Transit Surveys of Clusters. *ApJ*, 723:1703–1710, 2010.
- B. JACKSON**, N. Miller, R. Barnes, S. N. Raymond, J. J. Fortney, & R. Greenberg. The roles of tidal evolution and evaporative mass loss in the origin of CoRoT-7 b. *MNRAS*, 407:910–922, 2010.
- R. D. Lorenz, **B. JACKSON**, & J. W. Barnes. Inexpensive time-lapse digital cameras for studying

- transient meteorological phenomena: dust devils and playa flooding. *Journal of Atmospheric and Oceanic Technology*, 27:246, 2010a.
- R. D. Lorenz, **B. JACKSON**, & A. Hayes. Racetrack and Bonnie Claire: southwestern US playa lakes as analogs for Ontario Lacus, Titan. *Planet. Space Sci.*, 58:724–731, 2010b.
- P. V. Sada, D. Deming, **B. JACKSON**, D. E. Jennings, S. W. Peterson, F. Haase, K. Bays, E. O’Gorman, & A. Lundsford. Recent Transits of the Super-Earth Exoplanet GJ 1214b. *ApJ*, 720:L215–L218, 2010.
- J. W. Barnes, R. H. Brown, J. M. Soderblom, L. A. Soderblom, R. Jaumann, **B. JACKSON**, S. Le Mouélic, C. Sotin, B. J. Buratti, K. M. Pitman, K. H. Baines, R. N. Clark, P. D. Nicholson, E. P. Turtle, & J. Perry. Shoreline features of Titan’s Ontario Lacus from Cassini/VIMS observations. *Icarus*, 201:217–225, 2009a.
- R. Barnes, **B. JACKSON**, R. Greenberg, & S. N. Raymond. Tidal Limits to Planetary Habitability. *ApJ*, 700:L30–L33, 2009b.
- R. Barnes, **B. JACKSON**, S. N. Raymond, A. A. West, & R. Greenberg. The HD 40307 Planetary System: Super-Earths or Mini-Neptunes? *ApJ*, 695:1006–1011, 2009c.
- B. JACKSON**, R. Barnes, & R. Greenberg. Observational Evidence for Tidal Destruction of Exoplanets. *ApJ*, 698:1357–1366, 2009.
- R. Barnes, S. N. Raymond, **B. JACKSON**, & R. Greenberg. Tides and the Evolution of Planetary Habitability. *Astrobiology*, 8:557–568, 2008.
- B. JACKSON**, R. Barnes, & R. Greenberg. Tidal heating of terrestrial extrasolar planets and implications for their habitability. *MNRAS*, 391:237–245, 2008a.
- B. JACKSON**, R. Greenberg, & R. Barnes. Tidal Evolution of Close-in Extrasolar Planets. *ApJ*, 678:1396–1406, 2008b.
- B. JACKSON**, R. Greenberg, & R. Barnes. Tidal Heating of Extrasolar Planets. *ApJ*, 681:1631–1638, 2008c.
- J. P. Dunn, **B. JACKSON**, R. P. Deo, C. Farrington, V. Das, & D. M. Crenshaw. An Internet Database of Ultraviolet Continuum Light Curves for Seyfert Galaxies. *PASP*, 118:572–579, 2006.

### Book Chapters

- B. JACKSON** & J. Carlberg. Accretion of planetary material onto host stars. *Handbook of Exoplanets*, pages 1–18, 2017.
- R. D. Lorenz & **B. JACKSON**. Dust devil populations and statistics. *Space Science Reviews*, 203(1-4):277–297, 2016.
- B. JACKSON**, R. Barnes, & R. Greenberg. Tides and Exoplanets. In *Formation and Evolution of Exoplanets*, pages 243–266. 2010.

### Conference Abstracts

- B. JACKSON**, R. Lorenz, [Davis, K.](#), & B. Lipple. Using an instrumented drone to probe dust devils. In *Lunar and Planetary Science Conference*, volume 49. 2018.
- R. Lorenz, **B. JACKSON**, & P. Lanagan. A timelapse camera archive of dust devil activity at eldorado playa, usa. In *Lunar and Planetary Science Conference*, volume 49. 2018.
- B. JACKSON** & R. Lorenz. A framework for mitigating the biases in barometric dust devil surveys. In *Lunar and Planetary Science Conference*, volume 48. 2017.

- B. JACKSON**, R. Lorenz, [Davis, K.](#), & B. Lipple. Using an instrumented drone to sample dust devils. In *AAS/Division for Planetary Sciences Meeting Abstracts*, volume 49. 2017a.
- B. K. Jackson, E. R. Adams, & M. Endl. Superpig's ultra-short-period planets from k2 campaigns 6 through 8. In *American Astronomical Society Meeting Abstracts*, volume 229. 2017b.
- [Davis, K.](#) & **B. JACKSON**. Boise state's idaho eclipse outreach program. In *AAS/Division for Planetary Sciences Meeting Abstracts*, volume 49. 2017.
- E. R. Adams, **B. JACKSON**, & M. Endl. Ultra-short-period planets in k2: New results from superpig. In *AAS/Division for Planetary Sciences Meeting Abstracts*, volume 48. 2016.
- B. JACKSON**. Crowdfunding to support university research and public outreach. In *AAS/Division for Planetary Sciences Meeting Abstracts*, volume 48. 2016.
- B. JACKSON**, [Jensen, E.](#), S. Peacock, P. Arras, & K. Penev. Tidal decay and roche-lobe overflow of gaseous exoplanets. In *AAS/Division for Planetary Sciences Meeting Abstracts*, volume 48. 2016.
- B. K. Meinke, **B. JACKSON**, S. Buxner, S. Horst, D. Brain, & N. M. Schneider. Dps discovery slide sets for the introductory astronomy instructor. In *AAS/Division for Planetary Sciences Meeting Abstracts*, volume 48. 2016.
- E. R. Adams & **B. JACKSON**. The SuPerPiG search for short period planets in the K2 dataset. In *AAS/Division for Planetary Sciences Meeting Abstracts*, volume 47 of *AAS/Division for Planetary Sciences Meeting Abstracts*, page 501.02. 2015.
- B. JACKSON**, P. Arras, S. Peacock, & K. Penev. Tidal Decay and Disruption of Gaseous Exoplanets. In *American Astronomical Society Meeting Abstracts*, volume 225 of *American Astronomical Society Meeting Abstracts*, page 408.07. 2015a.
- B. JACKSON**, P. Arras, S. Peacock, & K. Penev. Tidal Decay and Disruption of Gaseous Exoplanets. *IAU General Assembly*, 22:2258333, 2015b.
- B. K. Jackson, P. Arras, [Jensen, E.](#), S. Peacock, P. Marchant, & K. Penev. Tidal Decay and Disruption of Gaseous Exoplanets. In *AAS/Division for Planetary Sciences Meeting Abstracts*, volume 47 of *AAS/Division for Planetary Sciences Meeting Abstracts*, page 501.08. 2015c.
- R. Luger, R. Barnes, E. Lopez, J. Fortney, **B. JACKSON**, & V. Meadows. Habitable Evaporated Cores: Transforming Mini-Neptunes into Super-Earths in the Habitable Zones of M Dwarfs. *Astrobiology*, 15:57–88, 2015.
- E. R. Adams, **B. JACKSON**, M. Endl, C. C. Stark, J. Chambers, & D. Deming. A Survey for Very Short-Period Planets in the Kepler Data. In *AAS/Division for Planetary Sciences Meeting Abstracts*, volume 46 of *AAS/Division for Planetary Sciences Meeting Abstracts*, page 210.01. 2014.
- B. JACKSON** & R. Lorenz. A Multi-Year Dust Devil Vortex Survey Using an Automated Search of Pressure Time-Series. In *AAS/Division for Planetary Sciences Meeting Abstracts*, volume 46 of *AAS/Division for Planetary Sciences Meeting Abstracts*, page 300.05. 2014.
- B. JACKSON**, C. C. Stark, E. R. Adams, J. E. Chambers, & D. Deming. A Survey for Very Short-Period Planets in the Kepler Data. In *American Astronomical Society Meeting Abstracts #223*, volume 223 of *American Astronomical Society Meeting Abstracts*, page 132.02. 2014.
- D. R. Klassen, A. Roman, **B. JACKSON**, & N. Schneider. DPS Listing of Planetary Science Graduate Programs: A Resource for Students and Advisors. In *AAS/Division for Planetary Sciences Meeting Abstracts*, volume 46 of *AAS/Division for Planetary Sciences Meeting Abstracts*, page #212.01. 2014.
- R. Luger, R. Barnes, E. Lopez, J. J. Fortney, B. K. Jackson, & V. Meadows. Habitable Evaporated



- Cores: Converting Mini-Neptunes into Super-Earths in the Habitable Zone of M Dwarfs. In *American Astronomical Society Meeting Abstracts #223*, volume 223 of *American Astronomical Society Meeting Abstracts*, page #325.05. 2014.
- K. Penev & **B. JACKSON**. Tidal Alignment of Exoplanets Around Low Mass Stars. In *American Astronomical Society Meeting Abstracts #224*, volume 224 of *American Astronomical Society Meeting Abstracts*, page #416.01. 2014.
- B. JACKSON**, C. C. Stark, E. R. Adams, G. Anglada-Escudé, N. Law, & M. Endl. A Survey for Very Short-Period Planets in the *Kepler* Data. In *Kepler Conference II Abstracts*. 2013a.
- B. JACKSON**, C. C. Stark, E. R. Adams, M. Endl, P. Arras, A. Boss, & D. Deming. A Survey for Very Short-Period Planets in the *Kepler* Data. In *AAS/Division for Planetary Sciences Meeting Abstracts #45*, volume 45 of *AAS/Division for Planetary Sciences Meeting Abstracts*. 2013b.
- B. JACKSON** & J. Carlberg. Ellipsoidal Variation Analysis of *Kepler* Observations Using the EVIL-MC Model. In *AAS/Division for Planetary Sciences Meeting Abstracts #44*, volume 44 of *AAS/Division for Planetary Sciences Meeting Abstracts*. 2012.
- B. JACKSON**, N. K. Lewis, J. W. Barnes, D. Deming, A. P. Showman, & J. J. Fortney. The EVIL-MC Model for Ellipsoidal Variations of Planet-Hosting Stars and Applications to the HAT-P-7 System. In *Cool Stars Proceedings*. 2012.
- M. P. Milazzo, [Weiss, D. K.](#), **B. JACKSON**, & J. Barnes. Columnar Jointing on Mars: Earth Analog Studies. In *Lunar and Planetary Institute Science Conference Abstracts*, volume 43 of *Lunar and Planetary Inst. Technical Report*, page 2726. 2012.
- [Thom, N.](#) & **B. JACKSON**. Atmospheric Mass Loss and Orbital Evolution of Exoplanets. In *Lunar and Planetary Institute Science Conference Abstracts*, volume 43 of *Lunar and Planetary Inst. Technical Report*, page 2717. 2012.
- [Weiss, D. K.](#), **B. JACKSON**, M. P. Milazzo, & J. W. Barnes. A New Look at Cooling Models for Martian Flood Basalt Columns. In *Lunar and Planetary Institute Science Conference Abstracts*, volume 43 of *Lunar and Planetary Inst. Technical Report*, page 1150. 2012.
- G. Vixie, J. W. Barnes, **B. JACKSON**, & P. Wilson. Temperate Lakes Discovered on Titan. In *Lunar and Planetary Institute Science Conference Abstracts*, volume 43 of *Lunar and Planetary Inst. Technical Report*, page 2766. 2012a.
- G. Vixie, J. W. Barnes, **B. JACKSON**, & P. Wilson. Temperate Lakes Discovered on Titan. In V. Cottini, C. Nixon, & R. Lorenz, editors, *Titan Through Time; Unlocking Titan's Past, Present and Future*, page 32. 2012b.
- B. JACKSON** & D. Deming. Analysis Of *Kepler* Observations Of HAT-P-7 b. In *AAS/Division for Extreme Solar Systems Abstracts*, volume 2 of *AAS/Division for Extreme Solar Systems Abstracts*, page 306. 2011a.
- B. JACKSON** & D. Deming. The Effects of Tidal Distortion on Transit Lightcurves. In *EPSC-DPS Joint Meeting 2011*, page 172. 2011b.
- B. JACKSON**, K. Penev, & R. Barnes. Constraining Tidal Dissipation in Stars and Destruction Rates of Exoplanets. In *American Astronomical Society Meeting Abstracts 217*, volume 43, page 402.06. 2011.
- [Weiss, D. K.](#), **B. JACKSON**, M. P. Milazzo, & J. W. Barnes. Modeling Cooling Rates of Martian Flood Basalt Columns. *AGU Fall Meeting Abstracts*, page B1769, 2011.
- B. JACKSON**. Hermean Atmospheres of Hot Rocky Exoplanets. In *AAS/Division for Planetary Sciences Meeting Abstracts 42*, volume 42, page 1078. 2010.
- B. JACKSON**, R. Barnes, S. N. Raymond, J. Fortney, & R. Greenberg. Is CoRoT-7 B the Remnant



- Core of an Evaporated Gas Giant? In *American Astronomical Society Meeting Abstracts 215*, volume 42, page 339.05. 2010.
- B. JACKSON** & J. Debes. Effects of Tidal Evolution of Hot Jupiters on Transit Surveys. In *Cool Stars Conference Abstracts 16*. 2010a.
- B. JACKSON** & J. Debes. How the Tidal Evolution of the Orbits of Hot Jupiters Affect Transit Surveys of Clusters. In *National Capital Area Disks Workshop III*. 2010b.
- B. JACKSON**, R. Barnes, & R. Greenberg. Planetary Transits and Tidal Evolution. In *IAU Symposium*, volume 253 of *IAU Symposium*, pages 217–229. 2009a.
- B. JACKSON**, R. Barnes, S. Raymond, & R. Greenberg. Effects of Secular, Resonant and Tidal Perturbations on Planetary Habitability. In *AAS/Division for Planetary Sciences Meeting Abstracts #41*, volume 41 of *AAS/Division for Planetary Sciences Meeting Abstracts*, page #05.05. 2009b.
- B. JACKSON**, R. Greenberg, & R. Barnes. The Effects of Tides on Close-In Exoplanets. In *American Astronomical Society Meeting Abstracts 213*, volume 41 of *Bulletin of the American Astronomical Society*, page #351.01. 2009c.
- B. JACKSON**, R. Barnes, & R. Greenberg. Tidal Heating of Extrasolar Terrestrial-scale Planets and Constraints on Habitability. In *AAS/Division for Planetary Sciences Meeting Abstracts 40*, volume 40 of *Bulletin of the American Astronomical Society*, page 391. 2008a.
- B. JACKSON**, R. Greenberg, & R. Barnes. Tidal evolution of close-in extra-solar planets. In Y.-S. Sun, S. Ferraz-Mello, & J.-L. Zhou, editors, *IAU Symposium*, volume 249 of *IAU Symposium*, pages 187–196. 2008b.
- B. JACKSON**, R. Barnes, & R. Greenberg. Tidal Evolution of Close-in Extra-Solar Planets. In *American Astronomical Society Meeting Abstracts*, volume 39 of *Bulletin of the American Astronomical Society*, page 857. 2007a.
- B. JACKSON**, R. Greenberg, & R. Barnes. Tidal Evolution of Extrasolar Planets. In *AAS/Division of Dynamical Astronomy Meeting 38*, volume 38 of *AAS/Division of Dynamical Astronomy Meeting*, page #15.02. 2007b.
- B. JACKSON**, C. A. Griffith, & Cassini VIMS Team. VIMS Observations of Titan’s South Polar Haze. In *AAS/Division for Planetary Sciences Meeting Abstracts 37*, volume 37 of *Bulletin of the American Astronomical Society*, page 1569. 2005.
- G. Orton, B. Fischer, M. Ressler, & **B. JACKSON**. Exploring the 18-20 Micron Window in Titan’s Atmosphere: Rotational and Time Variability. In *Geophysical Research Abstracts*, volume 6, page 04044. 2004.

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**Seminars, Colloquia, and Public Lectures**

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- 2018 Aug 2: Nampa Public Library, Nampa IA  
2018 Jun 8: Boise Astronomical Society, Boise ID  
2018 Jun 1: Northwest American Physical Society Meeting @ University of Puget Sound, Tacoma WA  
2018 Apr 4: Physics & Astronomy Colloquium @ University of Texas at Dallas, Dallas TX - Host: Prof. Kaloyan Penev  
2018 Jan 9: Thinks and Drinks @ Long Drop Cider, Boise ID  
2018 Feb 3: Engineering and Science Festival @ Boise State, Boise ID  
2018 Jan 30: Technologies for Exoplanetary Science Seminar @ McGill University - Host: Prof. Nicholas Cowan  
2017 Dec 7: Astronomy Colloquium @ Lowell Observatory, Flagstaff AZ - Host: Dr. Joe Llama  
2017 Nov 30: Physics & Astronomy Colloquium @ College of Idaho, Caldwell ID  
2017 Sep 19: MIT Planetary Lunch Colloquium Series @ MIT, Cambridge MA - Host: John Brooks Biersteker  
2017 Sep 25: Geosciences Colloquium @ Boise State, Boise ID - Host: Prof. Jen Pierce  
2017 Jul 26: Idaho Conference for Undergraduate Research @ Boise State, Boise ID  
2017 Jun 9: Boise Astronomical Society Meeting, Boise ID  
2017 Mar 31: Formation and Dynamical Evolution of Exoplanets @ Aspen Center for Physics, Aspen CO  
2017 Feb 27: Presentation about the Solar Eclipse @ Flying M, Nampa ID  
2017 Feb 16: Teen Science Café @ Boise Public Library, Boise ID  
2017 Feb 16: Research Computing Days Lightning Talk @ Boise State, Boise ID  
2017 Feb 4: Engineering & Science Festival @ Boise State, Boise ID  
2017 Feb 3: Aerospace Day @ Boise State, Boise ID  
2017 Jan 27: Geology Colloquium @ University of Wyoming Geology & Geophysics, Laramie WY - Host: Prof. Robert Howell  
2017 Jan 27: Astronomy Colloquium @ University of Wyoming Physics & Astronomy, Laramie WY - Host: Prof. Hannah Jang-Condell  
2016 Oct 6: Viewing the 2017 Eclipse with Your Class @ Learning Across All Dimensions Teacher Conference, Boise ID  
2016 Aug 5: Tidal Decay and Disruption of Gaseous Exoplanets @ Exoclines 2016 Conference, Quest University, Squamish BC, CA  
2016 Apr 7: The Exoplanet Revolution @ Osher Institute, Boise ID  
2016 Apr 1: Earth Sciences Colloquium @ University of Western Ontario, London ON, CA - Host: Prof. Catherine Neish, UWO Earth Sciences  
2016 Mar 31: Physics and Astronomy Colloquium @ University of Western Ontario, London ON, CA - Host: Prof. Peter Brown, UWO Physics and Astronomy  
2016 Mar 31: Centre for Planetary Science and Exploration (CPSX) Brown-Bag Talk @ University of Western Ontario, London ON, CA - Host: Prof. Catherine Neish, UWO Earth Sciences  
2016 Feb 5: Keynote Speaker for Aerospace Day @ Boise State University, Boise ID - Host: Christine Chang Gillespie, Boise State Instfor STEM and Diversity Initiatives  
2016 Jan 25: Physics Dept. Colloquium @ Idaho State University, Pocatello ID - Host: Prof. Steven Shropshire

- 2015 Dec 4: Astronomy Dept. Colloquium @ New Mexico State University, Las Cruces NM - Host: Prof. Jim Murphy
- 2015 Sep 24: Geosciences Dept. Seminar @ Brigham Young University, Provo UT - Host: Prof. Jani Radebaugh
- 2015 Sep 23: Physics & Astronomy Dept. Seminar @ Brigham Young University, Provo UT - Host: Prof. Clark Christensen
- 2015 Sep 4: Physics Dept. Seminar @ Boise State University, Boise ID - Host: Prof. Charles Hanna
- 2015 Jun 26: Planetary Astronomy Lunch Seminar @ University of Maryland, College Park MD - Host: Dr. Michael Kelley
- 2014 Oct 27: Geosciences Department Seminar @ Boise State University, Boise ID Host: Prof. David Wilkins
- 2014 Apr 17: Monthly Meeting Lecture @ Howard Astronomical League, Howard Co., MD Host: Chris Todd
- 2014 Mar 4: Departmental Seminar @ Boise State Univ., Boise ID Host: Prof. Daryl Macomb
- 2014 Feb 27: Departmental Seminar @ U of NE, Kearney, Kearney NE Host: Prof. W. Lee Powell
- 2014 Feb 4: Planetary Astronomy Lunch Seminar (PALS) @ U of MD, College Park MD Host: Dr. Michael Kelley
- 2013 Dec 19: Department Seminar @ Carnegie DTM, Washington DC – Host: Dr. Alycia Weinberger
- 2013 Dec 19: Department Seminar @ Carnegie DTM, Washington DC – Host: Dr. Alycia Weinberger
- 2013 Dec 11: Astronomy Colloquium @ US Naval Observatory, Washington DC – Host: Dr. Mark Stollberg
- 2013 Sep 24: Exoplanets Seminar @ NASA Goddard, Greenbelt MD – Host: Dr. Marc Kuchner
- 2013 Sep 12: Dept. of Astronomy TUNA Talk @ University of Virginia, Charlottesville VA – Host: Prof. Phil Arras
- 2013 Mar 21: Adler Planetarium Invited Seminar, Chicago IL – Host: Dr. Geza Gyuk
- 2013 Feb 13: Physics and Space Sciences Dept. Colloquium @ Florida Institute of Technology, Melbourne FL – Host: Prof. Terry Oswalt
- 2012 Nov 20: NASA's Goddard Exoplanets Seminar @ NASA/GSFC, Greenbelt MD – Host: Dr. Marc Kuchner
- 2012 Nov 14: University of Maryland Astronomy Dept. Colloquium @ University of Maryland, College Park MD – Host: Prof. Richard Mushotzky
- 2012 Oct 31: Carnegie DTM Colloquium @ Carnegie DTM, Washington DC – Host: Dr. Matt Fouch
- 2012 Oct 8: Special Talk @ Space Telescope Science Institute (STScI), Baltimore MD – Host: Dr. Anand Sivaramakrishan
- 2012 Apr 27: Geology Dept. Colloquium @ University of South Florida, Tampa FL - Host: Prof. Matthew Pasek
- 2012 Mar 1: Astronomy Dept. Lunch Talk @ Vanderbilt University, Nashville TN - Host: Dr. Joshua Pepper
- 2012 Feb 8: Physics Dept. Colloquium @ Lehigh University, Bethlehem PA - Host: Prof. George McCluskey

- 2011 Nov 3: Astronomy Dept. Colloquium @ Univ. of Virginia, Charlottesville VA – Host: Prof. Phil Arras
- 2011 Jun 7: Heraeus Seminar, Physikzentrum Bad Honnef, Germany (invited)
- 2011 May 12: Physics and Astronomy Dept. Colloquium @ Georgia State Univ., Atlanta GA - Host: Prof. Michael Crenshaw
- 2011 Feb 1: National Capital Astronomers monthly meeting (invited)
- 2010 May 7: Physics Dept. Colloquium @ Univ. of Idaho, Moscow ID - Host: Prof. Jason Barnes
- 2010 Apr 24: Northern Virginia Astronomy Clubs Astronomy Day (invited)
- 2010 Mar 21: Science and Exploration Director’s Science Seminar @ NASA/GSFC, Greenbelt MD - Host: Joseph Nuth
- 2010 Mar 17: Wednesday Lunch Talk (Wunch) @ Princeton Astrophysics Dept., Princeton NJ - Hosts: Tim Brandt and Prof. Adam Burrows
- 2010 Feb 23: Institute for Theoretical Computation Lunch Talk @ Harvard CfA, Boston MA - Host: Dr. Darin Ragozzine
- 2010 Feb 19: Special Planetary Science Seminar @ MIT Earth, Atmospheric, and Planetary Sciences Dept., Boston MA - Host: Prof. Sara Seager
- 2010 Feb 2: Kleigel Planetary Science Seminar @ Caltech Geological and Planetary Sciences Dept., Pasadena CA - Host: Prof. Michael Brown
- 2010 Jan 13: Science Brown-Bag Seminar @ NASA Headquarters, Washington D.C. - Host: Joe Bredekamp
- 2009 Nov 19: Physics and Astronomy Dept. Colloquium @ Franklin and Marshall College, Lancaster PA – Host: Dr. Delphine Perrodin
- 2009 Oct 29: Physics and Astronomy Dept. Colloquium @ State Univ. of New York Stony Brook, Stony Brook NY – Host: Prof. Deane Peterson
- 2009 Oct 27: Astronomy and Astrophysics Dept. Pizza Lunch Seminar @ Columbia Univ., New York NY – Host: Prof. Kristen Menou
- 2009 Sep 17: Exoplanets Group Talk @ Goddard Space Flight Center, Greenbelt MD - Host: Dr. Marc Kuchner
- 2009 Jul 21: Astronomy Dept. Colloquium @ Univ. of Washington, Seattle WA - Host: Dr. Rory Barnes
- 2009 Jun 5: Astronomy Dept. Colloquium @ Univ. of California Santa Cruz, Santa Cruz CA - Host: Prof. Jonathan Fortney

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**Courses Taught**

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Fall 2018

- UF 100 - Alien Worlds, Alien Life - Syllabus

Spring 2017

- PHYS 341 - Mechanics  
<https://sites.google.com/site/bsu2017phys341/>
- PHYS 205 - Stellar Astronomy  
<https://sites.google.com/site/bsu2016phys205wiki/>

Fall 2016

- PHYS104 - Planets and Astrobiology - Syllabus
- PHYS 204 - Planetary Astronomy  
<https://sites.google.com/site/bsu2016phys205wiki/>

Spring 2016

- PHYS 341 - Mechanics  
<https://sites.google.com/site/bsu2016phys341/>
- PHYS 205 - Stellar Astronomy  
<https://sites.google.com/site/bsu2016phys205wiki/>

Fall 2015

- PHYS 104/204 - Planets and Astrobiology  
<https://sites.google.com/site/bsu2015phys104/>  
<https://sites.google.com/site/bsu2015phys204wiki/>

Spring 2015

- PHYS 341 - Mechanics  
<https://sites.google.com/site/bsu2015phys341/>

Fall 2014

- PHYS 405 - Astrophysics  
<https://sites.google.com/site/bsu2014phys405/>

Spring 2010

- ASTR 330 Solar System Astronomy (University of Maryland)