

# Jonathan M. Jackson – Curriculum Vitae

Department of Astronomy and Astrophysics, The Pennsylvania University

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## Education

- 2018 – present    **Ph.D. The Pennsylvania State University, State College, PA** in Astronomy and Astrophysics.  
*Graduate Minor.* Computational Sciences
- 2018    **M.S. The Pennsylvania State University, State College, PA** in Astronomy and Astrophysics.
- 2015    **B.A. Harvard University, Cambridge, MA**  
*Concentration.* Astronomy and Astrophysics  
*Secondary Field.* Earth and Planetary Science

## Fellowships and Scholarships

- 2021 – 2022    **Pennsylvania Space Grant Consortium Graduate Fellowship**
- 2018, 2019    **Zaccheus Daniel Fellowship**
- 2018    **Sagan Summer Workshop Travel Assistance**
- 2017    **NSF Graduate Research Fellowship**, Honorable Mention
- 2016    **Astrobiology Graduate Conference (AbGradCon) Travel Assistance**
- 2015 – 2016    **Homer F. Braddock/Nellie H. and Oscar L. Roberts Fellowship**
- 2014    **Massachusetts Space Grant Consortium Undergraduate Fellowship**

## Honors and Awards

- 2016    **Proposal Competition Winner**, AbGradCon Proposal Writing Workshop
- 2015 – 2016    **TA of the Year**, Penn State Astronomy Department
- 2015    **Undergraduate Chambliss Prize Honorable Mention**, American Astronomical Society

## Research Publications

### First-Author Publications

1. **Jackson, J. M.**; Dawson, R. I., Quarles, B.; Dong, J., *Statistical Limits on High-eccentricity Migration from Kepler*, 2021, in prep.
2. **Jackson, J. M.**; Dawson, R. I.; Shannon, A.; Petrovich, C., *Predicted Observables from Perturber-coupled High-eccentricity Tidal Migration of Warm Jupiters*, 2021, *The Astronomical Journal*
3. **Jackson, J. M.**; Dawson, R. I.; Zalesky, J., *The Origin of Kepler-419b: A Path to Tidal Migration Via Four-body Secular Interactions*, 2019, *The Astronomical Journal*

### Co-Author Publications

1. Dong, J.; Huang, C. X.; Zhou, G.; et al. (**including Jackson, J. M.**), *TOI-3362b: A Proto-Hot Jupiter Undergoing High-Eccentricity Tidal Migration*, 2021, Accepted

### Conference Proceedings

1. Udomprasert, P.; Goodman, A.; Sunbury, S.; Zhang, Z. H.; Sadler, P.; Dussault, M.; Block, S.; Lottridge, E.; **Jackson, J. M.**; Constantin, A.-M.; *Visualizing Moon Phases with WorldWide Telescope*, 2014, Astronomical Society of the Pacific Conference Series

## Research Positions

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- 2016 – present    **Graduate Research Assistant**, Penn State University  
*Dr. Rebekah Dawson*
- 2013 – 2015    **Undergraduate Researcher**, Harvard University  
Harvard College Research Program (HCRP) 2014  
*Dr. Ruth Murray-Clay, Dr. David Charbonneau, Dr. Joseph Hora*
- 2014    **NSF REU Researcher**, Maria Mitchell Observatory  
*Dr. Gretchen Harris, Dr. Michael West*
- 2012 – 2013    **Intern**, WorldWide Telescope Ambassadors Program  
*Dr. Patricia Udomprasert, Dr. Alyssa Goodman*

## Teaching Positions

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- Fall 2021    **Teaching Assistant**, Astronomy 140, Astronomy 475w  
*Dr. Alex Wolszczan, Dr. Rebekah Dawson*
- Spring 2020    **Teaching Assistant**, Astronomy 130, Astronomy 402  
*Dr. Niel Brandt, Dr. Derek Fox*
- Spring 2016    **Instructor**, Astronomy 11 “Elementary Astronomy Laboratory”  
**Teaching Assistant**, Rooftop Telescope and Planetarium
- Fall 2015    **Instructor**, Astronomy 11 “Elementary Astronomy Laboratory”  
**Guest Lecturer**, Astronomy 140 “Life in the Universe”  
**Teaching Assistant**, Astronomy 001, Astronomy 005  
*Dr. Chris Palma, Dr. Kevin Luhman*

## Professional Activities

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- 2016 – present    **Co-founder and Co-organizer**, Towards a More Inclusive Astronomy (TaMIA), Penn State University  
<http://www.tamiastronomy.org/>
- 2019 – 2020    **Graduate Representative**, Served as the graduate student liaison to the Penn State Astronomy and Astrophysics department
- 2019    **Scientific Organizing Committee**, Emerging Researchers in Exoplanet Science (ERES) Symposium V, Cornell University, June 17-19
- 2018    **Scientific and Local Organizing Committee**, Emerging Researchers in Exoplanet Science (ERES) Symposium IV, Penn State University, June 21-22

## Outreach

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- April 2017, June '19    **Astronomy on Tap State College Speaker**
- July 2016,'18    **AstroFest Volunteer**, Penn State University  
yearly 4-night outreach event
- October 2015,'17    **AstroNight Volunteer**, Penn State University  
yearly 1-night outreach event

## Outreach (continued)

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Summer 2014    ■ **Star Tours and Observatory Tours**, Maria Mitchell Observatory  
thrice weekly

## Presentations

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### Contributed Talks

1. *Constraints on High-Eccentricity Migration of Hot and Warm Jupiters*  
- Virtual Exoplanet Seminar Series, Princeton, Yale, UCSC (2021)
2. *Observable Predictions from Perturber-coupled High-eccentricity Migration of Warm Jupiters*  
- 52nd Meeting of the AAS Division on Dynamical Astronomy, Virtual (2021)
3. *Perturber-driven HEM for Warm Jupiters in the Context of Known Observables*  
- ERES V, Cornell University (2019)
4. *The Origin of Kepler-419b: A Path to Tidal Migration Via Four-body Secular Interactions*  
- CHEXO Meeting, University of Maryland (2019)
5. *The Origin of Kepler-419b: A Path to Tidal Migration Through Secular Eccentricity Modulation*  
- ERES IV, Penn State University (2018)
6. *The Origin of Kepler-419b: A Path to Tidal Migration Through Secular Eccentricity Modulation*  
- ERES III, Yale University (2017)

### Posters

1. *Perturber-driven HEM for Warm Jupiters in the Context of Known Observables*  
- 235th Meeting of the American Astronomical Society, Honolulu, HI (2020)
2. *Perturber-driven High-eccentricity Migration for Warm Jupiters in the Context of Known Observables*  
- ExSS IV, Reykjavik ISL (2019)
3. *The Origin of Kepler-419b: How an Additional, Undetected Perturber Could Lead to High Eccentricity Tidal Migration*  
- Sagan Summer Workshop, NASA Exoplanet Science Institute (2018)
4. *The Origin of Kepler-419b: A Path to Tidal Migration Through Secular Eccentricity Modulation*  
- Habitable Worlds 2017: A System Science Workshop, University of Wyoming (2017)
5. *Assessing 4-body Tidal Migration in the Kepler-419 System*  
- Aspen Winter Conference, Aspen Center for Physics (2017)
6. *Early Dynamical Upheaval in Planetary Systems*  
- AbGradCon, University of Colorado Boulder (2016)
7. *Early Dynamical Upheaval in Planetary Systems*  
- ERES II, Cornell University (2016)
8. *The Search for Mass Correlations between Globular Cluster Systems and their Host Galaxies*  
- 225th Meeting of the American Astronomical Society, Seattle WA (2015)