

# Jiayin (DJ) Dong

PhD Candidate in Astronomy & Astrophysics

525 Davey Lab University Park, PA 16802

✉ jdong@psu.edu | ☎ 0000-0002-3610-6953 | 🏠 jiayindong.github.io | 📧 jiayindong | 📄 myADS

## Education

### Pennsylvania State University

Ph.D. in Astronomy & Astrophysics; Ph.D. minor in Computational Science

M.S. in Astronomy & Astrophysics

State College, PA

Summer 2022 (expected)

April 2019

### University of Illinois at Urbana-Champaign

B.S. in Engineering Physics and Astronomy (dual degree) with honors

Champaign, IL

May 2017

## Fellowships & Awards

- 2021 **Duncombe Prize** Student research prize awarded by AAS Division on Dynamical Astronomy
- 2018–20 **Zaccheus Daniel Fellowship (x3)** Penn State travel grants for graduate student research
- 2020 **CCA Pre-Doctoral Fellowship** Selected as a predoc fellow at CCA, Flatiron Institute in Spring 2020
- 2019 **Student Poster Competition Winner** at New Horizons in Planetary Systems Conference
- 2018 **Sagan Workshop Travel Award** Travel support for 2018 Sagan Exoplanet Summer Workshop
- 2017 **Homer F. Braddock Fellowship** University scholarship awarded to selected 1st-year graduate students
- 2014–17 **Edmund J. James Scholar** Undergraduate honor program at the University of Illinois

## Refereed Publications

### First-authored publications

- [4] **Dong, J.**, Jiang, Y., & Armitage, P. 2021, "Boundary Layer Circumplanetary Accretion: How Fast Could an Unmagnetized Planet Spin Up Through Its Disk?", *ApJ*, **921**, 54 (15pp)
- [3] **Dong, J.**, Huang, C., Zhou, G., Dawson, R., et al. 2021, "TOI-3362b: A Proto-Hot Jupiter Undergoing High-Eccentricity Tidal Migration", *ApJL*, **920**, 16 (11pp)
- [2] **Dong, J.**, Huang, C., Dawson, R., Foreman-Mackey, D., et al. 2021, "Warm Jupiters in TESS Full-Frame Images: A Catalog and Observed Eccentricity Distribution for Year 1", *ApJS*, **255**, 6 (25pp)
- [1] **Dong, J.**, Dawson, R., Shannon, A., & Morrison, S. 2020, "Debris Disks in Multi-Planet Systems: Are Our Inferences Compromised by Unseen Planets?", *ApJ*, **889**, 47 (19pp)

### Selected co-authored publications

- [3] Foreman-Mackey et al. incl. **Dong, J.** 2021, "exoplanet: Gradient-based Probabilistic Inference for Exoplanet Data & Other Astronomical Time Series", *JOSS*, **6**, 3285
- [2] Dawson et al. incl. **Dong, J.** 2021, "Precise Transit and Radial-Velocity Characterization of a Resonant Pair: A Warm Jupiter TOI-216c and Eccentric Warm Neptune TOI-216b", *AJ*, **161**, 161
- [1] Kanodia et al. incl. **Dong, J.** 2020, "TOI-1728b: The Habitable-zone Planet Finder Confirms a Warm Super Neptune Orbiting an M Dwarf Host", *ApJ*, **899**, 1

### Publications in preparation

- [1] **Dong, J.**, Huang, C., Zhou, G., Dawson, R., et al. 2021, "NEID Rossiter-McLaughlin Measurement of TOI-1268b: A Young Warm Saturn Aligned with Its Cool Host Star", manuscript available upon request.

## Successful Observing Proposals

**PI** of PSU NEID (2020–2021), **38.5** hours (including **16**-hour P0/1 time), Architecture of TESS Warm Jupiter Systems

**PI** of NOIRLab NEID (2021), **5** hours, Conquering Stellar Variability for Young Planet Mass

**PI** of NOIRLab CHIRON (2020–2021), **80** hours, TESS Warm Jupiter Catalog: Validation and Follow-up

**PI** of NOIRLab LCOGT (2020–2021), **80** hours, TESS Warm Jupiter Catalog: Validation and Follow-up

**PI** of NOIRLab MINERVA-Australis (2021), **40** hours, TESS Warm Jupiter Catalog: Validation and Follow-up

**CO-I** on 3 other proposals, total of 49.2 hours of NEID, and total of 3 hours of NESSI

## Recent Contributed/Invited Talks

Over my graduate career, I have given **5** invited seminars, **7** contributed conference talks, **6** contributed conference posters, and **5** contributed seminars and lunch talks. Recent talks are listed below.

Oct. 2021 **Princeton Exoplanet Seminar** Princeton, NJ

Oct. 2021 **Caltech Planetary Science Seminar** Pasadena, CA

Oct. 2021 **Berkeley Center for Integrative Planetary Science Seminar** Berkeley, CA (Virtual)

Oct. 2021 **Carnegie EPL Astronomy Seminar** Washington, D.C. (Virtual)

Sep. 2021 **CfA Seminar** Boston, MA (Virtual)

May 2021 **The 52nd DDA Meeting** (Virtual, **Duncombe Prize Winner**)

Jan. 2021 **TESS Science Meeting 24** Boston, MA (Virtual)

Nov. 2020 **Exoplanet Demographics I** Pasadena, CA (Virtual)

July 2020 **Exoplanets III** Heidelberg, Germany (Virtual)

June 2020 **CCA Pre-Doctoral Symposium** New York, New York (Virtual)

## Mentoring Experience

2021–now **Claire DiPerna**, Penn State UG, Class of 2024, co-supervised with Bekki Dawson

2021–now **Jonathon Hope**, Penn State UG, Class of 2024, co-supervised with Bekki Dawson

## Selected Teaching/Outreach/Professional Experience

2021 **Sagan Workshop Hands-on Session Helper** Facilitated hands-on session at Sagan workshop 2021

2021 **Organizing Committee** for the 6th Emerging Researchers in Exoplanet Science symposium

2020 **Panelist** on the Graduate School Information Session for Penn State undergraduate students

2020 **Moderator** for Exoplanets III; 950+ online participants; Coordinated with Transits 1 & 2 sessions

2017–19 **Exploring Exoplanets Demonstrator; The Guardian of Kid Prizes** at AstroFest (4-night outreach, 2500+ public visitors) & Astronight (1-night outreach, 500+ students)

Fall 2019 **Journal Club Organizer** for the Center for Exoplanets and Habitable Worlds

2019 **Executive Secretary** of NASA XRP Review Panel

2018 **Organizing Committee** for the 4th Emerging Researchers in Exoplanet Science symposium

2017–18 **Teaching Assistant** and **Guest Lecturer** of undergraduate-level astronomy courses

## Selected Press Release

2021 **Eberly College Science News & MINERVA-Australis Press** Super-eccentric Warm Jupiter (Dong+21b)

2021 **AAS Journal Author Series** Interviewed with AAS Editor Frank Timmes on Dong+2021a

2020 **Eberly College Science Journal Winter Edition** Highlighted research on "Detail in the Debris" (Dong+2020)