Jiayin (DJ) **Dong**

PhD Candidate in Astronomy & Astrophysics
525 Davey Lab University Park, PA 16802
+1 (814)865-0418 | jdong@psu.edu | 0000-0002-3610-6953 | jiayindong | @jiayin_dong

Education

Pennsylvania State University — State College, PA
Ph.D. in Astronomy & Astrophysics (Ph.D. minor in Computational Science) — Summer 2022 (Expected)
M.S. in Astronomy & Astrophysics — April 2019

University of Illinois at Urbana-Champaign — Champaign, IL
B.S. in Engineering Physics and Astronomy (Dual Degree) with honours — May 2017

Honors & Awards

2018, 19, 20 **Zaccheus Daniel Fellowship** Penn State travel grants for graduate student research
2020 **CCA Pre-Doctoral Fellowship** Awarded a 5-month research analyst position @ Flatiron CCA
2019 **Student Poster Competition Winner** 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

[3] **Dong, J.**, Huang, X., Dawson, R., Foreman-Mackey, D., et al., 2020, "Warm Jupiters in Year 1 TESS Full-Frame Images: A Catalog and Its Observed Eccentricity Distribution" In prep.

[2] **Dong, J.**, Jiang Y., & Armitage, P., 2020, "Boundary Layer Circumplanetary Accretion: How Fast Could an Unmagnetized Planet Spin Up Through Its Disk?" AAS Journals submitted

[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

Co-authored publications

[3] Dawson et al. **including Dong, J.**, 2020, "Precise transit and radial-velocity characterization of a resonant pair: a warm Jupiter TOI-216c and eccentric warm Neptune TOI-216b", AJ submitted

[2] Kanodia et al. **including Dong, J.**, 2020, "TOI-1728b: The Habitable-zone Planet Finder confirms a warm super Neptune orbiting an M dwarf host", ApJ, **899**, 1

[1] McFarquhar, G.M. et al. **including Dong, J.**, 2017, "Processing of Cloud In-Situ Data Collected by Bulk Water, Scattering and Imaging Probes: Fundamentals, Uncertainties and Efforts towards Consistency", Meteorological Monographs, **11.1**

Successful Observing Proposals as PI

PSU 2021A **PI Dong** (Co-I: Huang, Dawson, Ford, Zhou, Rodriguez, Vanderburg, et al.) NEID 1.7 Nights
NOIRLab 2020B **PI Dong** (Co-I: Huang, Dawson, et al.) LCO 3 Nights; CHIRON 2 Nights
PSU 2020B **PI Dong** (Co-I: Dawson, Huang, Jackson, Kanodia, the NEID science team, et al.) NEID 0.6 Nights
PSU 2020A **PI Dong** (Co-I: Dawson, Huang, Jackson, Kanodia, the NEID science team, et al.) NEID 0.5 Nights

Contributed Talks & Seminars

Nov. 2020 **Exoplanet Demographics I** "The Eccentricity Distribution and Occurrence Rates of Warm, Large Exoplanets" Pasadena, CA (Virtual)

Aug. 2020 **The 51st DDA Meeting** "Unraveling Warm, Large Exoplanet (WaLE) Origins From TESS Observations" Ithaca, NY (Virtual)

July 2020 **Exoplanets III** "A Catalog of Warm, Large Exoplanet (WaLE) candidates discovered in TESS Full Frame Images" Heidelberg, Germany (Virtual)

June 2020 **CCA Pre-Doctoral Symposium** "Angular Momentum Transport in Circumplanetary Disks: How Much Could an Unmagnetized Planet Spin up Through Its Disk?" New York, New York (Virtual)

Jan. 2020 **Tsinghua University Planet Formation Group Meeting** "Debris Disks in Multi-Planet Systems+TESS Warm Jupiters" Beijing, China

Nov. 2019 **Penn State Astronomy Lunch Talk** "Detection and Characterization of Warm Jupiters in TESS Full-Frame Images" State College, PA

June 2019 **Emerging Researchers in Exoplanet Science V (ERES V)** "Probing Young Planetary Systems from Their Debris Disks: Are Our Inferences Compromised by Unseen Planets?" Ithaca, NY

Jan. 2019 **Penn State Astronomy Lunch Talk** "Probing Young Planetary Systems from Their Debris Disks: Are We Messed up by Unseen Planets?" State College, PA

June 2018 **Emerging Researchers in Exoplanet Science IV (ERES IV)** "Investigating Young Planetary Systems Through Their Debris Disks" State College, PA

Sep. 2017 **Penn State Astronomy Lunch Talk** "An ALMA Continuum Survey of the Protoplanetary Disks in the ρ-Ophiuchus Molecular Cloud" State College, PA

Posters

Aug. 2019 **Extreme Solar Systems IV** "Probing Young Planetary Systems from Their Debris Disks: Are Our Inferences Compromised by Unseen Planets?" Reykjavik, Iceland

July 2019 **TESS Science Conference I** "Detection and Characterization of TESS Warm Jupiters" Cambridge, MA

May 2019 **New Horizons in Planetary Systems** "Probing Young Planetary Systems from Their Debris Disks: Are Our Inferences Compromised by Unseen Planets?" Victoria, BC **(Student Poster Prize)**

July 2018 **Sagan Exoplanet Summer Workshop** "Investigating Young Planetary Systems Through Their Debris Disks" Pasadena, CA

Apr. 2016 **University of Illinois Image of Research** "Substructures of Protoplanetary Disks Revealed with ALMA Radio Observations" Champaign, IL

Certificates

Applications of Parallel Computers Spring 2018

Certificated by the UC Berkeley and the Ohio Supercomputer Center; Completed a full-semester training with coding projects in OpenMP, MPI, and CUDA

Summer School in Astroinformatics Summer 2018

Completed a one-week summer school in high-performance computing and machine learning

Teaching & Mentoring Experience

Graduate Teaching Assistant State College, PA

Elementary Astronomy; Fundamental of Planetary Science and Astronomy 2017, 18

- TA responsibilities including grading assignments, offering office hours, and proctoring exams.
- Two guest lectures to roughly 150 students on **"The Solar System Formation"**.
- One guest lecture to 5 students on **"Elementary Astronomy Lab"**.

Undergraduate Grader and Observation Assistant Champaign, IL

Introduction to Astrophysics 2016, 17

- Graded homework and exams for sophomore undergraduate students in Astronomy major.
- Set up telescopes, monitored telescopes for safe use by students, and discussed celestial objects being observed during the evening and solar observing sessions.

Outreach & Professional Experience

2021 **Local Organizing Committee** for The First Penn State SETI Symposium

2020 **Eberly College Science Journal** Interviewed for star and planet formation callout (Dong et al. 2020)

2020 **Panelist** on 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** AstroFest (4-night outreach, 2500+ public visitors) & Astronight (1-night outreach, 500+ students)

Fall 2019 **CEHW Journal Club Organizer** Organized weekly Astro-ph.EP group discussion for the Center for Exoplanets and Habitable Worlds (CEHW)

2019 **Executive Secretary** of NASA Review Panel

2018 **Organizing Committee** for ERES IV; Involved in abstract selection and conference scheduling; Chaired the **Planet Formation & Evolution** session; Organized excursions.