

Daniel Johns

Curriculum Vitae

Space Systems Analysis & Test Group
MIT Lincoln Laboratory
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Education

- 2024 **PhD, Astronomy**, Georgia State University, Atlanta, GA.
Advisors: Dr. Fabien Baron, Dr. Stuart Jefferies.
- 2020 **BS, Physics**, Kutztown University, Kutztown, PA.
Summa cum laude

Research Experience

- 2020–2024 **Graduate Research Assistant**, Georgia State University, Atlanta, GA.,
Advisor: Fabien Baron, Co-advisor: Stuart Jefferies.
Dynamical Doppler Imaging & Hyperspectral Speckle Imaging.
- 2016–2020 **Undergraduate Research Assistant**, Kutztown University, Kutztown, PA.,
Advisor: Phill Reed.
Observing and Modeling the Variable Accretion States of Interacting Algol-type Binaries.
- 2018 **Undergraduate Research Assistant**, University of Southern Queensland, Toowoomba, QLD, Australia.,
Advisor: Rob Wittenmyer.
Revising Exoplanet Characteristics and Habitability using Gaia DR2.

Teaching Experience

- 2020–2024 **Graduate Teaching Assistant - Lab Instructor**, ASTR 1010 - Solar System Astronomy, ASTR 1020 - Stellar & Galactic Astronomy, PHYS 1111 - Introductory Physics I, PHYS 1112 - Introductory Physics II, Georgia State University, Atlanta, GA.

Publications

- 2024 **Monitoring Spacecraft Materials In-Situ Using Hyper-Spectral Speckle Imaging**, *Johns et. al.*, 2024, Accepted for publication in JASS: VOLTRON 2024 Special Edition.
- 2019 **KELT-23Ab: A Hot Jupiter Transiting a Near-Solar Twin Near the TESS and JWST Continuous Viewing Zones**, *Johns et. al.*, 2019, AJ, 158, 78.
- 2018 **Revised Exoplanet Radii and Habitability Using Gaia Data Release 2**, *Johns et. al.*, 2018, ApJS, 239, 14.

Invited Talks

- 2024 **Hyperspectral Speckle Imaging: Simulations and Lab-Based Experiments**, *Invited Talk*, 15th Space Surveillance Squadron, Maui, HI.
- 2024 **Hyperspectral Speckle Imaging for On-Orbit Materials Identification and Aging Studies**, *VOLTRON Meeting 2024*, Georgia Tech Research Institute, Atlanta, GA.
- 2024 **Benchtop Experiments for Wavefront Control**, *II LIOM Workshop*, IACTEC, Tenerife, Spain (virtual).
- 2022 **Wavefront Sensing for Speckle Imaging**, *Invited Talk*, NASA JPL, Pasadena, CA (virtual).

Observing Proposals

- 2022B **Imaging Starspots with CHARA/MIRC-X**, *The CHARA Array*, 1 full night.

Honors, Awards, & Fellowships

- 2024 **Outstanding Senior Graduate Student in Astronomy**, *Georgia State University*, Atlanta, GA.
- 2022–2024 **Remote Sensing for Space Sciences Fellowship**, *Georgia State University*, Atlanta, GA.
- 2020–2024 **Second Century Initiative Fellowship**, *Department of Physics & Astronomy*, Georgia State University, Atlanta, GA.
- 2023 **Outstanding Junior Graduate Student in Astronomy**, *Georgia State University*, Atlanta, GA.
- 2023 **Chambliss Astronomy Achievement Award Honorable Mention**, *241st Meeting of the American Astronomical Society*.
- 2022 **NSF-GRFP Honorable Mention**, *Georgia State University*, Atlanta, GA.
- 2020 **Syed R-Ali Zaidi Award for Academic Excellence**, *Pennsylvania State System of Higher Education*.
- 2020 **Gold Chambliss Academic Achievement Award**, *Kutztown University*, Kutztown, PA.
- 2020 **NSF-GRFP Honorable Mention**, *Kutztown University*, Kutztown, PA.
- 2019 **Sigma Pi Sigma**, *Kutztown University Chapter*, Kutztown, PA.
- 2019 **Best Presentation in Physics, Astronomy, and Engineering**, *Pennsylvania State System of Higher Education STEM Conference 2019*.
- 2019 **Carole and Ray Neag Undergraduate Research Grant**, *Kutztown University*, Kutztown, PA.

Activities & Outreach

- 2023–2024 **Hard Labor Creek Observatory Public Observing Nights**, *Facilitated observing nights for the general public*, Georgia State University, Rutledge, GA.

- 2022–2023 **Machine Shop Committee**, *Astronomy graduate student member*, Department of Physics & Astronomy, Georgia State University, Atlanta, GA.
- 2021–2022 **Computing Committee**, *Astronomy graduate student member*, Department of Physics & Astronomy, Georgia State University, Atlanta, GA.
- 2021 **Atlanta Science Festival**, *Organized and moderated virtual event*, Department of Physics & Astronomy, Georgia State University, Atlanta, GA.
- 2018-2019 **Society of Physics Students**, *Treasurer*, Kutztown University, Kutztown, PA.