Wolf Cukier

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EDUCATION

University of Chicago, Chicago, Illinois, USA — Sep 2024 – Present

PhD Student, Department of Astronomy and Astrophysics

Princeton University, Princeton, New Jersey, USA — Aug 2020 – May 2024

AB in Astrophyscial Sciences. May 2024. *Summa Cum Laude*

Certificates in Applied and Computational Mathematics, Applications of Computing, and Planets and Life

PUBLICATIONS

[1] **W. Cukier** and T. Daylan, "Dynamical stability of double planets in multiplanetary systems," *in prep.*

[2] **W. Cukier** and J. Szalay, "Formation, Structure, and Detectability of the Geminids Meteoroid Stream," *PSJ* 4:109, 2023. https://doi.org/10.3847/PSJ/acd538

[3] V. Kostov, J. Orosz, A. Feinstein, W. Welsh, **W. Cukier** *et al.*, "TOI-1338: TESS' First Transiting Circumbinary Planet," *AJ* 159:253, 2020. https://doi.org/10.3847/1538-3881/ab8a48

[4] **W. Cukier** *et al.*, "Habitable Zone Boundaries for Circumbinary Planets," *PASP* 131:124402, 2019. https://doi.org/10.1088/1538-3873/ab50cb

RESEARCH EXPERIENCE

Graduate Student — Sep 2024 – Present
University of Chicago, Department of Astronomy and Astrophysics

Undergraduate Researcher — Jun 2021 – May 2024
Princeton University, Department of Astrophysical Sciences

NASA Summer Intern — Jun 2018 – Aug 2019
NASA Goddard Space Flight Center, Science Mission Directorate

TALKS & POSTERS

- *Natural Transport of Microbes from Early Venus to Archean Earth* — May 2024
  Contributed Talk, Planets and Life Certificate Symposium, Princeton University
- *Stellar Systems Far and Near: Finding Tatooine-like Planets and Determining the Origins of the Geminids Meteor Shower* — May 2024
  Invited Talk, Astronomical Society of Kansas City
- *Dynamical Stability of Binary Planets in Compact Multi-Planetary Systems* — Apr 2024
  Contributed Talk, Applied and Computational Mathematics Certificate Symposium, Princeton University
- *Reflection Spectra, Albedos, and Phase Curves from a δ-Spherical Harmonics Mie Scattering Model* — Jan 2024
  Contributed Poster, AAS 243 Winter
- *Albedos and Phase Curves for Arbitrary Scattering in Semi-Infinite Atmospheres* — Jul 2023
  Contributed Talk, Astrophysics Summer Research Symposium, Princeton University
- *Formation, Structure, and Detectability of the Geminids Meteoroid Stream* — Jul 2023
  Invited Talk, Parker Solar Probe SWG Telecon
- *Polarized Raytracing of Black Hole Mangetospheres* — Mar 2023
  Contributed Talk, TICUP/PSPS/NSBP JP Symposium, Princeton University
- *Formation, Structure, and Detectability of the Geminids Meteoroid Stream* — Feb 2023
  Invited Talk, Princeton&IAS Bahcall Lunch, Princeton University
- *Formation, Structure, and Detectability of the Geminids Meteoroid Stream* — Jan 2023
  Contributed Poster, AAS 241 Winter
- *Polarized Raytracing of Black Hole Mangetospheres* — Jul 2022
  Contributed Talk, Astrophysics Summer Research Symposium, Princeton University

AWARDS & HONORS

- NSF GRFP Honorable Mention — Apr 2024
- Chambliss Astronomy Achievement Student Award Honorable Mention — Jan 2023

TEACHING EXPERIENCE

- ASTR 12700 Stars, TA, UChicago — Sep 2024–Dec 2024

- PHY 105 (Mechanics) / PHY 106 (E&M) Tutor, Princeton University — Sep 2021–May 2022
- COS 217 (Systems) / COS 226 (Algorithms) Grader, Princeton Unicersity — Sep 2021–May 2022

CAMPUS ACTIVITIES

Service and Outreach

- Princeton Astrophysics Climate Committee – *Undergrad Representative* — Sep 2023 – May 2024
- Princeton Astrophysics LGBTQ+ Affinity Group – *Co-Lead* — Mar 2023 – May 2024
- Princeton Astronomy Club – *Treasurer* — Sep 2022 – Jan 2024
- Princeton University Science Olympiad – *Event Supervisor* — Sep 2020 – Apr 2023

PROGRAMMING

Python, Julia, C, Java, ARM64, Unix Shell, LSF Clusters, HPC Clusters
numpy, pyplot, rebound, matplotlib

SELECTED MEDIA APPEARANCES

- A violent collision likely created the Geminids meteor shower. CNN, 2023.
- Discovery of TESS Mission's First Circumbinary Planet. Centauri Dreams, 2020.
- A teenager discovered a new planet on the third day of his NASA internship. Washington Post, 2020.
- NASA Intern Discovers New Planet. NPR, 2020.

[*CV compiled on 2024-10-12*]