

Maya Skarbinski

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EDUCATION

Johns Hopkins University

Current PhD student.

Advised by Dr. Kate Rowlands, Dr. Katey Alatalo and Professor Timothy Heckman

Baltimore, MD

Sept 2023 – present

Harvard University

A.B. joint degree in Astrophysics and Physics (*Summa cum laude*)

Senior thesis: A JWST Library of Galaxy SEDs

Cambridge, MA

May 2023

RESEARCH EXPERIENCE

Researcher, Harvard-Smithsonian Center for Astrophysics

Sept 2022 – May 2023

Created a galaxy spectral energy distribution library using James Webb Space Telescope observations for my senior thesis. Paper in preparation. Advised by Professor Daniel Eisenstein and Dr. Ben Johnson.

NSF REU Research Intern, IfA, University of Hawai‘i at Mānoa

May – July 2022

Tested the method of measuring inclination angles of disk galaxies using synthetic images derived from the IllustrisTNG50 cosmological simulation. Advised by Dr. Hua Gao and Professor Eugene Magnier.

Researcher, Harvard-Smithsonian Center for Astrophysics

June 2021 – May 2022

Researched the impact of mergers on the physical properties of molecular clouds in a Milky Way-like galaxy. Paper published December 2022 in MNRAS. Advised by Dr. Sarah Jeffreson and Professor Alyssa Goodman.

Research Intern, Columbia University Astrophysics Laboratory

April – June 2019

Researched coincident detection rates of gravitational waves and high energy neutrinos with the goal of better understanding future data from LISA and IceCube-Gen2. Advised by Dr. Zsuzsanna Marka.

GRANTS AND AWARDS

2023 – William H. Miller Fellowship (support for first year of graduate school)

2023 – Hoopes Prize (for outstanding scholarly work or research on my senior thesis)

2023 – Phi Beta Kappa (Harvard University)

2021 – Detur Book Prize (for very high academic standing during the first three semesters at college)

2020, 21, 22 – John Harvard Scholar (top 5% of class at Harvard College)

PUBLICATIONS

Building the molecular cloud population: the role of cloud mergers, [Skarbinski, M.](#), Jeffreson, S. M. R., Goodman, A. A., **MNRAS** **519**, 1887 (2023).

Overview of the JWST Advanced Deep Extragalactic Survey (JADES), Eisenstein, D. J., Willott, C., Alberts, S., et al. ([incl. Skarbinski, M.](#)), ApJS submitted (2023).

JADES Initial Data Release for the Hubble Ultra Deep Field: Revealing the Faint Infrared Sky with Deep JWST NIRCам Imaging, Rieke, M. J., Robertson, B. E., Tacchella, S., et al. ([incl. Skarbinski, M.](#)), ApJS accepted (2023)

JADES NIRSpec Initial Data Release for the Hubble Ultra Deep Field: Redshifts and Line Fluxes of Distant Galaxies from the Deepest JWST Cycle 1 NIRSpec Multi-Object Spectroscopy, Bunker, A. J., Cameron, A. J., Curtis-Lake, E., et al. ([incl. Skarbinski, M.](#)), A&A submitted (2023)

PRESENTATIONS

Poster: *Building the molecular cloud population: the role of cloud mergers*, AAS 241, January 2023

TEACHING AND OUTREACH

Peer Tutor, Academic Resource Center at Harvard University

Sept 2021 – May 2023

Tutored students in physics, statistics, and applied math classes.

Co-Chair and Mentor, Society of Physics Students Polaris Program

Sept 2021 – May 2023

Mentored first- and second-year physics students and coordinated the mentorship program in 2022-23.

Grader, Harvard University Physics Department

Sept – Dec 2020

Graded problem sets for Physics 15a (Introductory Mechanics and Relativity).