Hayden R. Foote

Ph.D. Candidate
Department of Astronomy / Steward Observatory
The University of Arizona
haydenfoote@arizona.edu

Room D315, Steward Observatory
933 N Cherry Ave.
Tucson, AZ 85719

EDUCATION

In Progress: **Doctor of Philosophy** in Astronomy and Astrophysics, expected 2025
The University of Arizona | Tucson, Arizona, USA
Advisor: Prof. Gurtina Besla

Master of Science in Astronomy and Astrophysics, 2023
The University of Arizona | Tucson, Arizona, USA
Thesis: *Structure, Kinematics, and Observability of the Large Magellanic Cloud's Dynamical Friction Wake in Cold vs. Fuzzy Dark Matter*
Advisor: Prof. Gurtina Besla

Bachelor of Arts (*summa cum laude*, With Distinction) in Astronomy, 2020
The University of Colorado Boulder | Boulder, Colorado, USA
Thesis: *Mass Segregation in Eccentric Nuclear Disks: Enhanced Tidal Disruption Event Rates for High Mass Stars*
Advisor: Prof. Ann-Marie Madigan

AWARDS

UArizona College of Science Fellowship, 2020
UArizona Theoretical Astrophysics Program travel grant, 2023

POSITIONS

Graduate Teaching Assistant, Steward Observatory, January 2023 – Present
Graduate Research Assistant, Steward Observatory, August 2020 – December 2022
Undergraduate Research Assistant, JILA (CU Boulder), January 2018 – June 2020

PRESENTATIONS

- "The LMC's Dynamical Friction Wake in Cold vs. Fuzzy Dark Matter" – Max Planck Institute for Astrophysics Cosmology Seminar, June 2023
- "The LMC's Dynamical Friction Wake in Cold vs. Fuzzy Dark Matter" –

Contributed oral presentation at the 54th Meeting of the Division on Dynamical Astronomy, May 2023

- "Making Observational Predictions for the LMC's Dynamical Friction Wake" – Poster presentation at the 53rd Meeting of the Division on Dynamical Astronomy, May 2022
- "Studying Dynamical Friction on the LMC as a Dark Matter Probe" – Poster presentation at the 52nd Meeting of the Division on Dynamical Astronomy, May 2021
- "Mass Segregation in Eccentric Nuclear Disks" – Poster presentation at the 235th Meeting of the American Astronomical Society, January 2020.
- "Mass Segregation in Eccentric Nuclear Disks" – CU Boulder CASA/JILA Seminar, October 2019.
- "Vertical Mass Segregation in Eccentric Nuclear Disks" – Contributed talk at the 50th Meeting of the Division on Dynamical Astronomy, June 2019.
- "Vertical Mass Segregation in Eccentric Nuclear Disks" – Poster presentation at the 50th Meeting of the Division on Dynamical Astronomy, June 2019.

PEER-REVIEWED PUBLICATIONS

- *Structure, Kinematics, and Observability of the Large Magellanic Cloud's Dynamical Friction Wake in Cold vs. Fuzzy Dark Matter*, **Hayden R. Foote**, Gurtina Besla, Philip Mocz, Nicolás Garavito-Camargo, Lachlan Lancaster, Martin Sparre, Emily C. Cunningham, Mark Vogelsberger, Facundo A. Gómez, and Chervin F. P. Laporte 2023, arXiv preprints, https://arxiv.org/abs/2307.00053. Accepted for publication in ApJ.
- *Mass Segregation in Eccentric Nuclear Disks: Enhanced Tidal Disruption Event Rates for High Mass Stars*, **Hayden R. Foote**, Aleksey Generozov, and Ann-Marie Madigan 2020, *The Astrophysical Journal*, 890, 175

TEACHING

Teaching Assistant for ASTR 400B (Theoretical Astrophysics), University of Arizona, Spring 2023

Learning Assistant for PHYS 1120 (General Physics 2), University of Colorado Boulder, Spring 2020

SERVICE

Steward Observatory Diversity and Equity Initiative (SO-DEI) Admissions Task Force, July 2020 - Present

Tucson Astronomy on Tap (Space Drafts) Co-coordinator, Spring 2022 - Present