Hayden R. Foote

Ph.D. Candidate
Department of Astronomy / Steward Observatory
The University of Arizona
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EDUCATION

In Progress: **Doctor of Philosophy** in Astronomy and Astrophysics, expected 2026

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

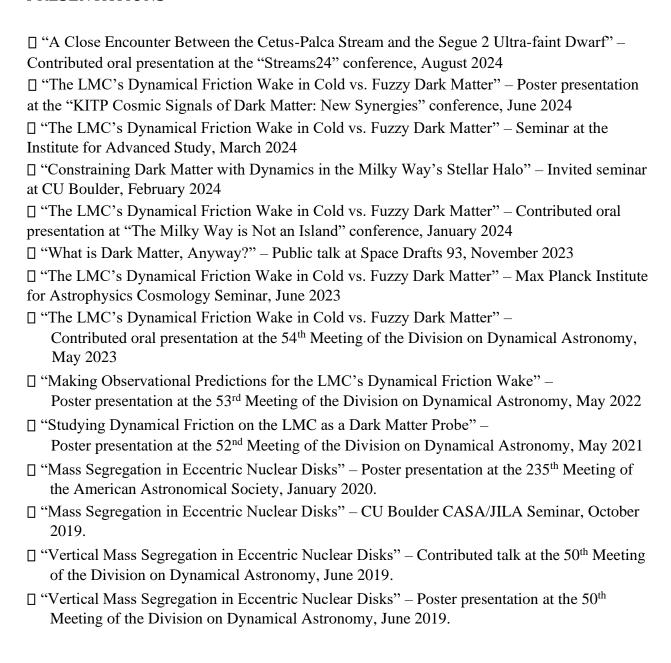
UArizona Theoretical Astrophysics Program travel grant, 2024

UArizona Theoretical Astrophysics Program travel grant, 2025

POSITIONS

Graduate Research Assistant, Steward Observatory, January 2024 – Present Graduate Teaching Assistant, Steward Observatory, January 2023 – December 2023 Graduate Research Assistant, Steward Observatory, August 2020 – December 2022 Undergraduate Research Assistant, JILA (CU Boulder), January 2018 – June 2020

PRESENTATIONS



PEER-REVIEWED PUBLICATIONS

☐ Segue 2 Recently Collided with the Cetus-Palca Stream: New Opportunities to Constrain Dark Matter in an Ultra-faint Dwarf, **Hayden R. Foote**, Gurtina Besla, Nicolás Garavito-Camargo, Ekta Patel, Guillaume F. Thomas, Ana Bonaca, Adrian M. Price-Whelan, Annika H. G. Peter, Dennis Zaritsky, and Charlie Conroy 2025, *The Astrophysical Journal*, 979, 171

- ☐ 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, *The Astrophysical Journal*, 954, 163
- ☐ 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 170B (Exploring our Universe), University of Arizona, Fall 2023 **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 Inclusion Committee, October 2023 - Present Steward Observatory Diversity and Equity Initiative (SO-DEI) Admissions Task Force, July 2020 – May 2023

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