

# Quinn Casey

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## RESEARCH INTERESTS

Active galactic nuclei (AGN) • galaxy formation & evolution • AGN variability and feedback • spectroscopy & IFUs • multi-messenger astronomy • starburst-AGN connection • low-mass galaxies • resolved stars • big data & ML

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## EDUCATION

**Ph.D., Physics and Astronomy** Expected 2028  
Advisor: Dr. Ryan Hickox, Dartmouth College

**B.S., Physics and Astronomy** May 2021  
Advisor: Dr. Christy Tremonti, The University of Wisconsin-Madison

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## TEACHING EXPERIENCE

**Teaching Assistant**, Department of Physics and Astronomy, Dartmouth College

ASTR 19: Habitable Planets	Spring 2026
PHYS 04: General Physics II (w/Lab)	Spring 2025
ASTR 02: Exploring the Universe (w/Lab)	Fall 2024
ASTR 19: Habitable Planets	Spring 2024
ASTR 01: Exploration of the Solar System (w/Lab)	Summer 2023
ASTR 04: Development of Astronomical Thought	Spring 2023
PHYS 13: Introductory Physics I (w/Lab)	Winter 2023

**Teaching Assistant**, Department of Astronomy, UW-Madison  
ASTR 103: The Evolving Universe: Stars, Galaxies, and Cosmology Fall 2021

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## OBSERVING EXPERIENCE

**MDM Observatory** 2023 - Present  
Hiltner Telescope, *CH $\alpha$ S* (15 nights)  
Hiltner Telescope, *OSMOS* (5 nights)  
McGraw-Hill Telescope, *Templeton Direct* (10 nights)

**Las Campanas Observatory** Dec 2023  
Magellan Clay Telescope, *MEGACAM* (2 nights)

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## AWARDED TELESCOPE TIME

Awarded as PI .....

MDM Observatory/CH $\alpha$ S  
*Extended AGN Emission in Nearby Galaxies* 15 nights, 2024

**Awarded as Co-I** .....

South African Large Telescope/NIRWALS  
*NIR Spectroscopy of Luminous Obscured AGN* 10.4 hours, 2024-2  
*NIR Spectroscopy of Dwarf AGN Candidates* 10 hours, 2024-2

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### FUNDING, HONORS, & AWARDS

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The Selamawit Tsehay Teaching Award Spring, 2025  
Matt Johns Funding Award (\$3600) Spring, 2024  
Dartmouth College  
NSF GRFP Honorable Mention 2024  
Lowell Doherty Award for Excellence in Astronomy Spring, 2021  
UW-Madison

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### CONFERENCES AND PRESENTATIONS

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- Supermassive Black Holes and Blue Notes, Université de Montréal July, 2026  
Contributed Talk: *A Population of Local Red Dots in SDSS*
- Galactic Frontiers II (**LOC**), Dartmouth College July, 2025  
Poster: *Deep Photometric Observations of Ultrafaint Milky Way Satellites Centaurus I and Eridanus IV*
- 244th Meeting of the American Astronomical Society, Madison, WI June, 2024  
Poster: *Using Extended Emission to Uncover Past AGN Activity with MaNGA*
- What Drives the Growth of Black Holes (**LOC**), Reykjavik, Iceland September 2022
- 239th Meeting of the American Astronomical Society, Virtual January, 2021  
Poster: *Low-Metallicity AGN in eBOSS*

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### COLLABORATIONS

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Roman Science Collaboration Fall 2025 - Present  
LSST AGN Working Group Fall 2024 - Present  
DECam Local Volume Exploration Survey (DELVE) Fall 2022 - Fall 2025

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### SKILLS

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**Data & modeling:** Markov Chain Monte Carlo (**emcee**), forward modeling, high-performance computer clusters

**Techniques:** SED-fitting, **GALFIT**, **DAOPHOT**

**Fluent:** python, **L<sup>A</sup>T<sub>E</sub>X**, git, IDL, ADQL (SQL92)

**Packages:** pandas, NumPy, Matplotlib, Astropy, SciPy, sklearn, PyTorch, TensorFlow

**Experience with:** html, Bash, R, SQL, iraf, pyraf, virtual machines

## MENTORSHIP, OUTREACH, & SERVICE

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Graduate Academia Survival Program (GASP) Program founder, coordinator, and peer-mentor Dartmouth College, Department of Physics and Astronomy	Summer 2024 – Present
Graduate Assembly Chair Advocate on behalf of graduate student body, doubled graduate student budget. Dartmouth College, Department of Physics and Astronomy	Summer 2024 – Present
Graduate Liaison to the DEI Committee Dartmouth College, Department of Physics and Astronomy	Fall 2023 – Spring 2025
Montshire Astronomy Day Montshire Museum of Science	2023, 2024, 2025, 2026
Solar Eclipse Viewing St. Johnsbury, VT	Spring 2024

## PUBLICATIONS

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- Summary** (2026-04-22): [ADS search](#) • 4 refereed • 1 lead author • 30 citations • *h*-index 4 .....
- *Deep Photometric Observations of Ultrafaint Milky Way Satellites Centaurus I and Eridanus IV*  
**Q. O. Casey**, B. Mutlu-Pakdil, D. Sand, and 20 additional authors  
The Astrophysical Journal (2025), 984, 148C
  - *Evidence for Evolutionary Pathway-dependent Black Hole Scaling Relations*  
J. H. Cohn, E. Durodola, **Q. O. Casey**, and 2 additional authors  
The Astrophysical Journal Letters (2025), 988, L61
  - *Hubble Space Telescope Imaging of Three Isolated Faint Dwarf Galaxies Beyond the Local Group: Pavo, Corvus A, and Kamino*  
B. Mutlu-Pakdil, M. Jones, D. Sand and 14 additional authors (including **Q. O. Casey**)  
The Astrophysical Journal (2026), 997, 271M
  - *DELVE Milky Way Satellite Census I: Satellite Population and Survey Selection Function*  
C. Tan, A. Drlica-Wagner, A. Pace, and 84 additional authors (including **Q. O. Casey**)  
The Astrophysical Journal (2026), 1000, 87T