

Luke Moffett

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Department of Physics and Astronomy

Dartmouth College ◇ 3006 Hinman ◇ Hanover, NH 03755

EDUCATION

B.A., Physics

August 2023 - Present

With a minor in Astronomy

Department of Physics and Astronomy

Dartmouth College

Current cumulative GPA: 3.64

TEACHING EXPERIENCE

Teaching Assistant and Grader

March - June 2026

Physics 019: Relativistic and Quantum Physics

Department of Physics and Astronomy, Dartmouth College

Lab Instructor and Grader

January - March 2026

Physics 004: General Physics II

Department of Physics and Astronomy, Dartmouth College

Lab Instructor

June - September 2025

Astronomy 001: Solar System and Exoplanets

Department of Physics and Astronomy, Dartmouth College

RESEARCH

Characterizing Mass-Loss Rates of Type II Supernova Progenitors with Late-Time Radio Observations

June 2026 - Present

Mentor: Tarraneh Eftekhari

- Using VLA observations of Type II SNe at late timescales to probe the circumstellar medium at larger physical scales than ever before.
- This was originally a project for the summer REU at Northwestern University's Center for Interdisciplinary Exploration and Research in Astrophysics (CIERA), and has since developed into a senior thesis.

Fitting Multi-Gaussian Expansions to Enable SMBH Mass Measurements

July 2025 - June 2026

Mentor: Jonathan Cohn

- Developing MGE fits to the stellar surface brightness profiles of local massive early-type galaxies for use in dynamical black hole mass measurements.

OBSERVATION AND DATA REDUCTION EXPERIENCE

Imaging and data reduction at Dartmouth College

May 2025 - Present

- Personal astrophotography projects
- Class projects for Astronomy 061: Observational Techniques
- Meade 12-in Schmidt-Cassegrain telescope, North Shed Observatory

Imaging and data reduction at MDM Observatory

September - November 2025

- Conducted as a project for Astronomy 061: Observational Techniques
- 1.3-m McGraw Hill Telescope

SKILLS

Observation: Calibrating and operating 12-in Meade telescope; operating 1.3-m McGraw Hill Telescope; optical imaging with CCD; optical data reduction; near-IR image analysis; radio image analysis

Languages: Python, LaTeX, Java

SCIENCE OUTREACH

Public Observing

January 2025 - Present

- Leading public astronomical observing nights in Dartmouth's North Shed Observatory
- Teaching guests about astronomical objects and phenomena
- Driving and maintaining the Meade 12-in Schmidt-Cassegrain telescope