UMassAmherst

DEPARTMENT OF ASTRONOMY



The Department of Astronomy is an independent, active, and vibrant department that offers undergraduate and graduate instruction at a public University in New England. The Department is active in a broad range of award-winning observational and theoretical astrophysics, engaging students in cutting-edge research inside and outside of the classroom. We seek to challenge and enhance our understanding of the cosmos that we live in.

UMass is a member of the Five College Astronomy Department (FCAD) alongside Amherst College, Mount Holyoke College, Smith College, and Hampshire College. As a result, students have access to a broad array of FCAD resources and interact with individuals across all five colleges.

Students (Fall 2023)

100 Undergraduate majors
22 PhD students

Professors and Researchers

14 UMass professors

7 FCAD professors

7 Postdocs and research fellows



Telescopes and Resources

- Partner in the 50-m Large Millimeter Telescope (LMT) in Mexico
- Access to the Perkins 1.8-m optical telescope for AST341 and research
- Access to advanced computational facilities
- Continuum and heterodyne instrument labs
- Involved in Subaru Prime Focus Spectrograph (PFS) project
- Faculty with joint affiliation at the Cosmic Dawn Center in Copenhagen



Statement on Diversity and Inclusion

The Department of Astronomy at the University of Massachusetts strongly values diversity and inclusion at all levels and is committed to provide opportunities to all. Towards the goal of being a community that reflects the diverse makeup of our society, the Department, in its graduate admission proceedings, will strive to increase the admission of students from historically underrepresented groups in Astronomy, aiming at aligning with national population averages. The Department will continue to be a welcoming beacon of scholarship for all.



Areas of Research

Research areas cover the X-ray, UV, Optical, IR, (Sub)mm and Radio regimes

Computational probability and statistics (big data)

Simulations of the formation and evolution of galaxies

Large scale structure

Interaction of galaxies with their environment: structure of dark matter halos and global properties of galaxy clusters

Chemical evolution of the ISM and the circumgalactic enrichment

Resolved star formation: star cluster formation and the initial mass function

Star formation and feedback: examining high-energy sources of the ISM

Coevolution of galaxies and supermassive black holes

Astronomical instrumentation

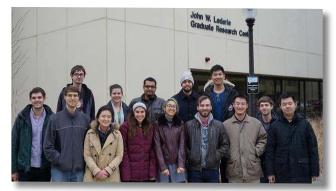




Awards, Grants, and Fellowship Opportunities

Travel grants are available for conferences every semester, and students have access to the following potential funding:

- FCAD fellowships for travel, graduate stipends, and computer resources (Mary Daily Irvine Fellowship, Judith S. Young Memorial Fellowship)
- Graduate School fellowships (including Spaulding-Smith Diversity Fellowship)
- Massachusetts Space Grant Consortium (MASGC) Scholarships
- Undergraduate Awards (Outstanding Astronomy Senior Award, Astronomy Award for Academic Excellence, David J. Van Blerkom Scholarship)





Ways to Support UMass Astronomy

All donations are deeply appreciated. Examples of how this funding is used to support the department include:

- Enabling upgrades to the historic Orchard Hill telescope
- Supporting paid undergraduate research for historically excluded groups through the AstroTROUP program
- Funding student conference travel and named awards for students' scholarly achievements





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