

PHYSICS

POINTS OF PRIDE

■ The number of Physics majors is steadily increasing. In May, the department had the largest ever graduating class, and this year there are over 200 students enrolled as majors.

■ Biophysicist Nikhil S. Malvankar '10 PhD, now a postdoctoral researcher in the department, received a coveted five-year, \$500,000 career award from the Burroughs Wellcome Fund.

■ Michael Ramsey-Musolf has established the Amherst Center for Fundamental Interactions and is a member of the DOE/NSF Nuclear Science Advisory Committee Long

Range Plan working group.

■ Jenny Ross won the Early Career Award from the Gordon and Betty Moore Foundation and the Research Corporation for Science Advancement.

■ Jun Yan, who received \$20,000 to support promising new research, won the UMass Amherst's Armstrong Fund for Science Award.

■ Andrea Pocar was named as one of the "9 scientists who are changing the way we view space" by *Business Insider* for his research with the Borexino experiment.

EDUCATION

■ The multi-track undergraduate program for majors includes many undergraduate research opportunities.

■ Last year, physics made the first-year sequence for majors more interactive, utilizing the team-based learning studios in the new Integrative Learning Center on campus.

■ Comprehensive graduate program offers opportunities for doctoral studies in most recent forefront areas of physics research.

■ Recent PhD graduates have taken postdoctoral positions at Arizona State, Brown, Duke, Harvard, MIT,

NC State, Northeastern, Syracuse, Virginia Tech, UNM, and UT Austin.

■ The department offers BA/BS, MS, and PhD degrees.

STUDENT AWARDS

■ Daniel Hoak '13 MS, '16 PhD won the Fulbright U.S. Student Award.

■ Javier King '15 won the UMass Rising Researcher Award.

■ Aaron Dunbrack '17 (double major in Astronomy and Physics) won the Barry Goldwater Scholarship in Education.

LEADERSHIP & OUTREACH

■ Bob Hallock recently chaired the International Union of Pure and Applied Physics Commission on Low Temperature Physics and is a board member emeritus of the Research Corporation for Scientific Advancement.

■ Stephane Willocq served from 2012 to 2014 as convener of the Exotics Physics Group for the ATLAS experiment at CERN's Large Hadron Collider.

■ Mark Tuominen leads projects in NanoEducation Curriculum Development and K-12 teacher workshops. He uses CHM funds with Morton Sternheim, professor emeritus and P.I. of a \$967,000 NSF ITEST grant, to organize nanotechnology workshops for teachers. Sternheim also has a state Department of Higher Education grant to train informal science educators.

BY THE NUMBERS FY15

Tenure-track faculty	27
Lecturers	5
Postdoctoral fellows	11
Undergraduate majors	200
Graduate students	76
Research awards	\$5.7M

RESEARCH AREAS

- Cosmology, gravity, nuclear, and particle theory
- Astrophysics, gravity, nuclear, and particle
- Theoretical and experimental hard and soft condensed-matter physics
- MassNanoTech: Nanoscale Science and Engineering Institute
- Center for Biological Physics: Biological Physics Theory and Experiment