

Housed within a large, diverse research university, Maryland Physics is one of the largest departments in the nation. Exploring more than 30 fields of physics, our faculty and students work together on some of today's most cutting edge physics research. Along with a rigorous academic curriculum and an ideal Washington D.C. location, this productive research program forms the foundation of a first-class educational experience. Our undergraduates are sought after by premier graduate schools and a competitive marketplace; and our graduate students advance to challenging careers in government, industry and academia.

Department of Physics

Research

Experimental Groups

- Astro Metrology
- Atomic, Molecular & Optical
- Biophysics
- Condensed Matter
- Cosmic Ray
- High Energy
- Nonlinear Dynamics & Chaos
- Nuclear Physics
- Particle Astrophysics
- Physics Education Research
- Plasma Physics
- Quantum Electronics
- Space Physics

Theoretical Groups

- Atomic, Molecular & Optical
- Condensed Matter
- Dynamic Systems & Accelerator
- Elementary Particles
- Gravitational Theory
- Nonlinear Dynamics & Chaos
- Plasma Theory
- Quantum Coherence and Information
- Quarks, Hadrons & Nuclei
- Spintronics & Spin Quantum Computing

- Superconducting Quantum Computing

Centers and Institutes

- Center for Particle & String Theory
- Center for Scientific Computation & Mathematical Modeling
- Center for Nanophysics & Advanced Materials
- Condensed Matter Theory Center
- East-West Space Science Center
- Graphene MURI
- Institute for Physical Science & Technology
- Institute for Research in Electronics & Applied Physics
- Institute for Systems Research
- Institute for Advanced Computer Studies
- Joint Quantum Institute (JQI)
- Maryland NanoCenter
- Maryland Center for Fundamental Physics
- Physics Frontier Center at the JQI
- Joint Space-Science Institute

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Drew Baden - Department Chair
Greg Sullivan - Associate Chair,
Facilities & Personnel

Sarah Eno - Associate Chair,
Graduate Education

Tom Cohen - Associate Chair,
Undergraduate Education

Department Rankings

- 4th Among All Public Universities
- 14th Among All Physics Departments Nationally (2010 US News & World Report)
- Four Academic Specialties Ranked Among Nation's 10 Best (2012 US News & World Report): Atomic/Molecular/Optical Physics, No. 7; Plasma Physics, No. 7; Quantum Physics, No. 9, Condensed Matter Physics, No. 10
- One of the largest Physics Research Programs in the US

Faculty Awards & Honors

- AAAS Fellows
- APS Fellows
- Boltzmann Medal
- COSPAR Medal
- Dirac Medal
- Goeppert-Mayer Award
- Heinemann Prize
- Humboldt Prize
- IEEE Fellows
- Irving Langmuir Prize
- Lenin Prize
- Maxwell Prize
- Millikan Medal
- Nobel Prize
- Onsager Prize
- Packard Fellows
- Royal Society Members
- Simon Memorial Prize
- Sloan Fellows
- Washington Academy of Science Fellows
- Wolf Prize
- World Science Peace Prize

Faculty

- 52 Full Professors (includes 10 Distinguished University Professors; 2 Distinguished University Fellows; 4 University System of MD Regents Professors)
- 1 Named Chair: Alford Ward Chair of Semiconductor Physics
- 7 Associate Professors
- 13 Assistant Professors
- 2 Chancellors Emeriti
- 1 President Emeritus (UM)
- 19 Research Scientists
- 62 Research Associates
- 70 Faculty Research Assistants
- 6 Slawsky Tutoring Clinic Staff

Undergraduate Programs

- 44 Incoming Freshmen
- 721 Average SAT
- 665 Average Verbal SAT
- 4.26 Average High School GPA
- 4 Bannerker Key Scholars
- 16 President's Scholars
- 2 Dean's Scholars
- 250 Undergraduate
- 40% with Merit-Based Scholarships
- Honors Program in Physics
- Physical Sciences Program
- Undergraduate Research Opportunities Program
- Slawsky Tutoring Clinic
- Society of Physics Students

Graduate Program

- 859 Average Physics GRE
- 3.89 Average Undergraduate GPA
- 238 Graduate Students
- 30 Graduate Fellows
- 99 % of Graduate Students Fully Supported
- 184 Graduate Research Assistants
- 57 Teaching Assistants

Outreach Programs

- Physics is Phun (since 1982). A public lecture-demonstration series; 4 programs per year, each offered on 3 consecutive days
- Annual Physics Olympics. Competition involves 35-40 teams from high schools in Maryland, Northern Virginia & Washington D.C.
- AAPT Physics Olympiad Training. UMD has served as the training site for over 10 years
- Physics Summer Girls. The physics outreach program is offered twice (two-week sessions) for 9th graders and once for 11th/12th graders

Facilities

- Mechanical Development
- Electronic Development
- Copy Center
- Raw Materials Stores
- Physical Stores
- Largest Lecture-Demonstration Facility in the United States; Over 1500 demonstrations and 500 seats

External Relations

National

- American Center for Physics
- American Association of Physics Teachers
- American Institute of Physics
- American Physical Society
- American Association of Physicists in Medicine
- Thomas Jefferson National Accelerator Facility (formerly CEBAF/SURA).
- NASA & UM East-West Space Science Center
- Laboratory for Astronomy and Solar Physics
- Laboratory for High Energy Astrophysics
- Naval Research Laboratory
- Cooperative Program in Plasma Physics
- National Institute of Standards and Technology
- Materials Science and Engineering Laboratory

- National Institutes of Health
- Neocera, Inc.
- Southeastern Universities Research Association
- Stanford Linear Accelerator Center

International

- Center for European Nuclear Research
- National Central University, Taiwan
- Nuclear Science Center, New Delhi, India

Location

Our Neighbors Include:

- American Institute of Physics
- Applied Physics Laboratory
- Army Research Laboratory
- Department of Energy
- Maryland Science Center
- National Institutes of Health
- National Science Foundation
- NASA Goddard Space Flight Center
- National Institute of Standards & Technology
- Naval Research Laboratory
- Space Telescope
- The Air & Space Museum
- Ford's Theatre
- Harborplace
- The Kennedy Center
- Mt. Vernon
- The National Aquarium in Baltimore
- The National Gallery of Art
- The Smithsonian Institution
- Discovery Port Children's Museum
- Professional baseball, basketball, football, hockey and soccer

