DEPARTMENT OF PHYSICS AND ASTRONOMY

Physics seeks to understand the fundamental workings of nature, from the constituents of matter deep within the nuclei of atoms, to the most distant galaxies of our expanding universe, to everyday phenomena of emergent complexity, self-organization and chaos. The resulting basic physical knowledge provides a firm foundation for innovations and is often the driving force of advanced technology. Computers, global positioning systems (GPS), the internet, lasers, magnetic resonance imaging (MRI) and other medical diagnostic tools, and space flight, along with many others, were all made possible by key advances in physics.

Physicists have a curiosity that thrives on the challenge of solving problems. Consistent with this, the physics program at Texas A&M strives to teach analytical thinking and quantitative problem-solving skills. This enables students to work productively in physics, in areas closely related to physics, and in a wide variety of areas outside of physics proper. Physicists can be found in almost any discipline that requires complex problem-solving skills. Some engage in cutting-edge research to increase our basic knowledge of the universe. Some apply new-found knowledge to make practical advances in the fields of computer science, medical science and engineering. Still others use their knowledge to advocate, advise, inform, instruct and administrate as lawyers, consultants, journalists/writers, teachers and managers.

The Department of Physics and Astronomy offers two undergraduate degree programs, a Bachelor of Arts and a Bachelor of Science, as well as minors in Astrophysics and Physics. The Bachelor of Science degree includes tracks in Astrophysics, Business, and Computational Science in addition to a no-track option. The Department of Physics and Astronomy also offers Master of Science degrees in Astronomy and Physics, and Doctor of Philosophy degrees in Applied Physics, Astronomy and Physics.

The faculty members of the department carry out theoretical and experimental research in the areas of astronomy and astrophysics, atomic, molecular and optical physics, computational physics, cosmology, high-energy and elementary particle physics, condensed matter physics and materials science, nuclear physics, quantum optics, and physics education. During the course of their undergraduate experience at Texas A&M, Physics majors have the opportunity to work with faculty in all of these areas.

Faculty

Abanov, Artem G, Associate Professor
Physics & Astronomy
PHD, Texas A&M University, 1998

Agnolet, Glenn, Professor
Physics & Astronomy
PHD, Cornell University, 1983

Akimov, Alexey, Assistant Professor
Physics & Astronomy
PHD, Moscow Institute of Technology, 2003

Allen, Roland E, Professor
Physics & Astronomy
PHD, University of Texas at Austin, 1969

Bassichis, William H, Professor
Physics & Astronomy
PHD, Case Western Reserve University, 1963

Becker, Katrin, Professor
Physics & Astronomy
PHD, University of Bonn, 1994

Becker, Melanie, Professor
Physics & Astronomy
PHD, University of Bonn, Germany, 1994

Belyanin, Alexey A, Professor
Physics & Astronomy
PHD, Institute of Applied Physics Russian Academy of Sciences, 1995

Chin, Siu A, Professor
Physics & Astronomy
PHD, Massachusetts Institute of Technology, 1975

Depoy, Darren L, Professor
Physics & Astronomy
PHD, University of Hawaii at Manoa, 1987

Dutta, Bhaskar, Professor
Physics & Astronomy
PHD, Oklahoma State University, 1995

Erukhimova, Tatiana L, Instructional Professor
Physics & Astronomy
PHD, Institute of Applied Physics, Russian Academy of Sciences, 1999

Eusebi, Ricardo, Professor
Physics & Astronomy
PHD, Institute of Applied Physics, Russian Academy of Sciences, 2006

Finkelstein, Alexander, Professor
Physics & Astronomy
PHD, Landau Institute for Theoretical Physics, 1972

Ford, Albert L, Professor
Physics & Astronomy
PHD, University of Texas at Austin, 1972

Fries, Rainer J, Professor
Physics & Astronomy
PHD, University of Regensburg, Germany, 2001

Fry, Edward S, Distinguished Professor
Physics & Astronomy
PHD, University of Michigan, 1969

Gagliardi, Carl A, Professor
Physics & Astronomy
PHD, Princeton University, 1982

Holt, Jeremy W, Assistant Professor
Physics & Astronomy
PHD, Stony Brook University, 2008

Kamon, Teruki, Professor
Physics & Astronomy
PHD, University of Tsukuba, 1986
Katzgraber, Helmut G, Professor
Physics & Astronomy
PHD, University of California-Santa Cruz, 2001

Kennicutt, Robert Charles, Professor
Physics & Astronomy
PHD, University of Washington, 1978

Khmenko, Vladamir, Research Professor
Physics & Astronomy
PHD, Institute of Chemical Physics, 1984

Ko, Che-Ming, University Distinguished Professor
Physics & Astronomy
PHD, State University of New York at Stony Brook, 1973

Kochkovskaya, Olga A, Distinguished Professor
Physics & Astronomy
PHD, Institute of Applied Physics, Russian Academy of Sciences, 1986

Kochkovsky, Vitaly V, Professor
Physics & Astronomy
PHD, Institute of Applied Physics, Russian Academy of Sciences, 1986

Krisciunas, Kevin L, Instructional Associate Professor
Physics & Astronomy
PHD, University of Washington, 2000

Lee, David M, University Distinguished Professor
Physics & Astronomy
PHD, Yale University, 1959

Lyukusytov, Igor, Professor
Physics & Astronomy

Macri, Lucas M, Professor
Physics & Astronomy
PHD, Harvard University, 2001

Mahapatra, Rupak K, Professor
Physics & Astronomy
PHD, University of Minnesota, 2000

Marshall, Jennifer L, Assistant Professor
Physics & Astronomy
PHD, Ohio State University, 2006

McIntyre, Peter M, Professor
Physics & Astronomy
PHD, University of Chicago, 1973

Melconian, Daniel G, Professor
Physics & Astronomy
PHD, Simon Fraser University, 2006

Mioduszewski, Saskia, Professor
Physics & Astronomy
PHD, University of Tennessee, 1999

Mirabolfathi, Nader, Research Associate Professor
Physics & Astronomy
PHD, University of Paris XI, 2002

Naugle, Donald G, Professor
Physics & Astronomy
PHD, Texas A&M University, 1965

Nodurft, Dawson, Instructional Assistant Professor
Physics & Astronomy
PHD, Texas A&M University, 2019

Papovich, Casey J, Professor
Physics & Astronomy
PHD, Johns Hopkins University, 2002

Pokrovsky, Valery, Distinguished Professor
Physics & Astronomy
PHD, Tomsk State University, 1957

Pope, Christopher N, Distinguished Professor
Physics & Astronomy
PHD, University of Cambridge, 1980

Rapp, Ralf F, Professor
Physics & Astronomy
PHD, Rheinische Friedrich-Wilhelma University, Bonn, 1996

Rogachev, Grigory V, Professor
Physics & Astronomy
PHD, National Research Centre, 1999

Ross Jr, Joseph H, Professor
Physics & Astronomy
PHD, University of Illinois at Urbana-Champaign, 1986

Safonov, Alexei N, Professor
Physics & Astronomy
PHD, University of Florida, 2001

Saslow, Wayne M, Professor
Physics & Astronomy
PHD, University of California - Irvine, 1968

Schuessler, Hans A, Professor
Physics & Astronomy
PHD, Universitat Heidelberg, 1964

Scully, Marlan O, Distinguished Professor
Physics & Astronomy
PHD, Yale University, 1966

Sezgin, Ergin, Professor
Physics & Astronomy
PHD, State University of New York at Stony Brook, 1980

Sokolov, Alexei V, Professor
Physics & Astronomy
PHD, Stanford University, 2001

Strigari, Louis E, Associate Professor
Physics & Astronomy
PHD, Ohio State University, 2005

Suntzef, Nicholas B, University Distinguished Professor
Physics & Astronomy
PHD, University of California - Santa Cruz, 1980
Teizer, Winfried, Professor  
Physics & Astronomy  
PHD, University of Massachusetts - Amherst, 1998

Toback, David, Professor  
Physics & Astronomy  
PHD, University of Chicago, 1997

Tribble, Robert E, Senior Professor  
Physics & Astronomy  
PHD, Princeton University, 1973

Walsh, Jonelle L, Assistant Professor  
Physics & Astronomy  
PHD, University of California, Irvine, 2011

Wang, Lifan, Professor  
Physics & Astronomy  
PHD, University of Science and Technology of China, 1993

Webb, Robert C, Professor  
Physics & Astronomy  
PHD, Princeton University, 1972

Weimer, Michael B, Professor  
Physics & Astronomy  
PHD, California Institute of Technology, 1986

Welch, George R, Professor  
Physics & Astronomy  
PHD, Massachusetts Institute of Technology, 1989

Wu, Wenhao, Associate Professor  
Physics & Astronomy  
PHD, University of Chicago, 1992

Xu, Shenglong, Research Assistant Professor  
Physics & Astronomy  
PHD, Unv of California, San Diego, 2017

Zheltikov, Alexey M, Professor  
Physics & Astronomy  
PHD, M.V. Lomonosov Moscow State University, 1990

Zubairy, Muhammad S, University Distinguished Professor  
Physics & Astronomy  
PHD, University of Rochester, 1979

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**Majors**

- Bachelor of Arts in Physics (http://catalog.tamu.edu/undergraduate/science/physics-astronomy/physics-ba/)
- Bachelor of Science in Physics (http://catalog.tamu.edu/undergraduate/science/physics-astronomy/physics-bs/)
- Bachelor of Science in Physics, Astrophysics Track (http://catalog.tamu.edu/undergraduate/science/physics-astronomy/physics-bs-astrophysics-track/)
- Bachelor of Science in Physics, Business Track (http://catalog.tamu.edu/undergraduate/science/physics-astronomy/physics-bs-business-track/)
- Bachelor of Science in Physics, Computational Science Track (http://catalog.tamu.edu/undergraduate/science/physics-astronomy/physics-bs-computational-science-track/)

**Minors**

- Astrophysics Minor (http://catalog.tamu.edu/undergraduate/science/physics-astronomy/astrophysics-minor/)
- Physics Minor (http://catalog.tamu.edu/undergraduate/science/physics-astronomy/physics-minor/)