Physics

Research opportunities in theoretical/computational physics are available in astrophysics, biophysics, chaos, condensed matter, nanoscience/nanomaterials, nuclear and particle physics, quantum computing, and relativity. Research opportunities in experimental physics are available in astronomy, atomic and molecular physics, biophysics, emergent phenomena, materials physics, nanoscale science, nonlinear systems, nuclear and particle physics, optics, soft-condensed-matter physics and technology, and surface physics.

Degrees earned will be distributed as: "Master of Science" and "Doctor of Physics" without specialization specifications.

Admission Requirements

Bachelor's degree in physics or equivalent and related. General GRE and the GRE Physics subject test are accepted, but not required.

Master's Degree Requirements

A minimum of 30 credit hours beyond the Bachelor's degree with mastery of aspects of the physics curriculum. There are 2 options:

• Option A: Earning 24 credit hours of courses, 6 of research, writing a dissertation, and passing an oral exam;
• Option B: Earning 30 credit hours of courses and passing the physics qualifying exam.

Doctoral Degree Requirements

A minimum of 72 credit hours beyond the Bachelor’s degree (54 with an incoming Master’s); demonstrating mastery of the core physics curriculum as evidenced by passing the qualifying exam; demonstrating mastery of research in a subspecialty of physics by passing appropriate elective courses, planning a research topic, passing an oral preliminary exam, writing a dissertation, and passing a final oral defense.

Student Financial Support

Graduate teaching assistantships are available for new and continuing students. Research assistantships are available to continuing students and occasionally to new students. More than 95% of students are supported by assistantships.

Degrees

• Physics (MS) (http://catalog.ncsu.edu/graduate/sciences/physics/physics-ms/)
• Physics (PhD) (http://catalog.ncsu.edu/graduate/sciences/physics/physics-phd/)
• Physics (Minor) (http://catalog.ncsu.edu/graduate/sciences/physics/physics-minor/)

Faculty

Full Professors

Harald Ade
David E. Aspnes
Robert J. Beichner
Jerzy Bernholc
John Michael Blondin
John D. Brown
Laura I. Clarke
Karen E. Daniels
William L. Ditto
Daniel B. Dougherty
Carla Frohlich
Robert Golub
Kenan Gundogdu
Hans D. Hallen
Paul R. Huffman
Chueng Ryong Ji
James P. Kneller
Gail C. McLaughlin
Lubos Mitas
Jagdish Narayan
Robert Riehn
Christopher M. Roland
Maria C. Sagui
Thomas M. Schaefer
John E. Thomas
Mithat Unsal
Keith R. Weninger
Albert R. Young

Associate Professors

Matthew Piron Green
Alexander Kemper
Divine Philip Kumah
Shuang Fang Lim
Richard Leigh Longland
Hong Wang

Assistant Professors

Julio Monti Belmonte
Rongmon Bordoloi
Mary Williard Elting
Sebastian Konig
Sharonda Leblanc
Katherine Jean Mack
Vladimir Skokov
Dali Sun

Practice/Research/Teaching Professors
Jason Russell Bochinski
Kazimierz Borkowski
Abay Dinku
Brand Irving Fortner
Keith Heyward
Parminder Kaur
John H. Kelley
Hayen Leendert
Kent Leung
Wenchang Lu
Vijaya Mehta
Zodiac T. Webster

Emeritus Faculty
Ruth W. Chabay
Kwong T. Chung
James W. Cook Jr.
Stephen R. Cotanch
William Robert Davis
Donald C. Ellison
Raymond Earl Fornes
Christopher Robert Gould
David G. Haase
Karen L. Johnston
Fred Lado Jr.
Jacqueline Krim
Gary E. Mitchell