NEW YORK CITY COLLEGE OF TECHNOLOGY

Department of Physics
N-811

Who We Are
Physics is an essential component in the education of a scientifically literate individual in an advanced society. The study of physics gives the student an opportunity to learn the fundamental theories that will be needed to explore how the world functions as well as the discoveries behind technological advances. The department offers courses in physics, astronomy and general science where students develop an appreciation and understanding of nature and the underlying laws which govern our universe. Coursework develops comprehension of basic physical principles, competence in using logical procedures in problem-solving and an awareness of historical advances and future potential in the field of science. Courses offered in the department serve the needs of the entire College community. Specific courses are required in some degree programs. Students may use courses offered by the department to satisfy the general education science requirement or as electives. Students who have taken or are taking calculus are encouraged to take PHYS 1441 and PHYS 1442 rather than PHYS 1433 and PHYS 1434.

Degrees Conferred
Bachelor of Science in APPLIED COMPUTATIONAL PHYSICS

The Applied Computational Physics degree program provides a more broad, balanced and flexible education than a traditional physics major. Combining computational elements alongside basic physical principles creates a mindset for modeling realistic systems. The course of study combines applied physics and high-performance computing to show complex laws of nature, physics methods and computational techniques within the context and application of different fields. Graduates will be well equipped with a solid platform in physics, computing and mathematics, as well as valuable skills in complex problemsolving and teamwork. This will position them to fulfill the growing need for researchers, educators, and information professionals in a wide variety of fields: including engineering areas such as aerospace, applied mathematics and computer science, physical chemistry, finance, biomedicine and environmental science, as well as research in academic, industrial or national laboratories.

Chair Person
German Kolmakov, Associate Professor

Faculty and Staff
Viviana Acquaviva, Associate Professor
Reginald Blake, Professor
Oleg Berman, Associate Professor
Andrea Ferroglia, Associate Professor
Boris Gelman, Associate Professor
Roman Kezerashvili, Professor
Darya Krym, Assistant Professor

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Lufeng Leng, Associate Professor
Ari Maller, Associate Professor
Ashraf Mongroo, Assistant Professor
Giovanni Ossola, Professor
Calvin Grace, College Lab Technician
George Kiezik, College Lab Technician
Ebony Halloway, CUNY Office Assistant

Interesting/Important Facts

The City Tech Center for Theoretical Physics is a subsidiary of the Physics Department of the New York City College of Technology. The Center for Theoretical Physics (CTP) is a unified research and teaching center focused on fundamental physics. The primary mission of the CTP is to foster and promote excellence in theoretical physics research with significant focus on mathematical physics, computational physics, condensed matter physics, particle physics, nuclear physics, and astrophysics. The CTP also aims to educate graduate and undergraduate students in theoretical and computational physics and to communicate its activities to the general public through public lectures and other outreach activities.

The CTP activities involve seminars, workshops, colloquia and conferences, collaborative and individual research. The CTP provides a seminar series, supports collaborative research between members of the CTP and other academic institutions worldwide, and supports graduate and undergraduate students' research.

The seminars enable the dissemination and discussion of current research and provide an opportunity to discuss new joint projects with collaborators. The speakers include CUNY faculty, scholars visiting from leading scientific centers and academic institutions within the US and worldwide. The talks are accessible to graduate students from the CUNY Graduate Center as well as advanced City Tech students majoring in Applied Computational Physics, Applied Mathematics, and Computer Sciences. Members of the CTP are encouraged to supervise student research at both the undergraduate and graduate level. They routinely participate in various programs supporting the research of minority undergraduate and graduate students.

The collaborative and individual research activities of CTP members range from string theory to LHC physics, to astrophysics at the highest energies and nuclei at the low energy scale, and also include nanophysics and interaction of light with matter.