

Master dual degree program “Theoretical nuclear physics”

Partner university: Al-Farabi Kazakh National University

Major: 03.04.01 Applied Mathematics and Physics

Study language: Russian

Graduation department: Theoretical Nuclear Physics Department, Institute for Laser and Plasma Technologies. The staff of the department is one of the leading Russian scientific schools, organizes major Russian and international conferences, and has more than 50 years of experience in educational and research activities with the participation of employees of leading scientific organizations.

Abstract: Fundamental training in physics, mathematics and engineering making it possible to successfully study the main general and specialized courses (including modern technologies of mathematical modeling of physical processes) under the supervision of leading world-class scientists and specialists. Wide range of theoretical and mathematical physics courses to choose from, covering nearly all the problems of theoretical physics and mathematical modeling ever existed and offering an opportunity to study with an individual learning plan.

Curriculum features

- theory of elementary particles
- methods of modern statistical physics
- selected chapters of quantum field theory, general relativity
- modern methods of mathematical modeling in theoretical physics.
- plasma theory
- nuclear physics
- astro- and cosmo-physics
- physics of condensed matter

Program Supervisors

Sergey Muravyov — Acting head of MEPhI Theoretical Nuclear Physics Department of / Ph. D. in Physics and Mathematics, associate professor

Medeu Abishev — head of KazNU Department of Theoretical and Nuclear Physics, Doctor of Physical and Mathematical Sciences

Career opportunities

leading Russian and foreign research centers and companies specializing in research software.

Areas of research and experts training

- Physics of ultrahigh laser fields
- Particle physics
- Astrophysics and cosmology
- Nuclear physics
- Quantum informatics and quantum computers