

14.04.02 Nuclear Physics and Engineering

Physics of Extreme States of Matter

Program objective

training students for problem solution in particle beam physics and radiation physics and chemistry.

Research areas of the program

- atomic nuclei
- plasma
- condensed state of matter
- materials science
- nuclear reactors
- charged particle accelerators
- radiation and nuclear technologies;
- diagnostics and application of heavily charged particle beams
- analytical studies of the interaction of fluxes of high-energy particles with matter.

Curriculum peculiarity

a set of interrelated courses in charged particle beams and physics of the interaction of particles with matter, computer simulations and modelling, analytical methods of beam monitoring, physics of the interaction of the charged particles with matter, and in accelerators.