

14.03.01 Nuclear Power Engineering and Thermophysics

Research Nuclear Reactors: Physics and Technologies

The program strives to attract and develop outstanding and diverse students to provide the best education in applied nuclear physics.

Curriculum features:

- particle diffusion and transport
- radiation transport methods
- radiation interactions
- radiation protection and dosimetry
- nondestructive control
- advanced nuclear materials
- research nuclear reactors
- thermal hydraulics
- nuclear safeguards and nonproliferation.
- nuclear risk assessment
- nuclear reactor physics
- waste management
- homeland security

Alumni professional activity relates to high-performance computing, code benchmarking, advanced research nuclear reactors design, neutron transport methods, and their application for simulation of real-life nuclear systems, reactor physics, advanced nuclear fuel design, and non-destructive testing and detection.