

## **03.04.02 Physics**

### **Advanced Semiconductor Lasers and Technologies**

*Department: “Semiconductor Quantum Electronics” (specialized industrial department of Lebedev Institute Physics of the Russian Academy of Sciences)*

#### **Program objective**

training of masters for research activities related to laser technologies, semiconductor quantum electronics, interaction of radiation with matter

#### **Key research areas**

- laser and plasma physics
- laser thermonuclear fusion
- physics of semiconductors
- optics and photonics
- interaction of radiation with matter
- physics of condensed matter
- physics of the nucleus and elementary particles
- physics of fast processes
- automated control systems and control, etc.

#### **Practical training and employment opportunities**

- national research centers
- Rosatom and Rostech corporation enterprises
- institutes of the Russian Academy of Sciences
- foreign partners: Optoelectronics Research Center, Tampere University of Technology (Finland), Principia Lightworks Inc. (USA), EPSRC National Center for III-V Technologies (Universities of Sheffield, Cambridge, Glasgow, Nottingham), Stepanov Institute of Physics of the National Academy of Sciences of Belarus, Samsung LED (Korea)