JINR, as a large multifaceted international scientific centre, focuses on keeping its uniqueness, upgrading its experimental facilities and fundamental research approaches, designing and applying new advanced technologies, and developing the high-level educational aspects of the Institute's activities.

JINR Director, Academician
Grigory Trubnikov

The Institute ratified the JINR Long-Term Development Strategic Plan up to 2030 and beyond that is aimed at sustainable development of the Institute as a leading international intergovernmental organization and high-impact scientific research for the benefit of the JINR Member States.

JINR IS A MEMBER OF 19 MAJOR collaborations of the world scientific centres, including 5 Institute-based

800+ PARTNER ORGANIZATIONS

RESEARCH DIRECTIONS

Theoretical Physics
Relativistic Heavy Ion Physics
Spin Physics
Particle Physics
Low Energy Nuclear Physics
Neutron Nuclear Physics
Condensed Matter Physics
Neutrino & **Astroparticle Physics**

LIFE SCIENCES:
Radiobiology
Biomedicine
Structural Biology
Astrobiology
Ecology

IT & **High-Performance Computing**
Outreach & Education

The Committee of Plenipotentiaries of the Governments of the JINR Member States, which is the supreme governing body of JINR, takes main decisions on the Institute's activities.

The research policy of JINR is determined by the Scientific Council. It consists of eminent scientists from world-leading scientific organizations and universities.

JINR possesses a unique set of experimental physics facilities for research in elementary particle physics, nuclear physics, and condensed matter physics.

7 JINR Laboratories, each comparable in the research scale to a large academic institution

JINR PROGRAMMES FOR STUDENTS
Directions: **Science, Engineering, IT**

START is an onsite JINR student programme intended for students under 30 from all over the world who specialise in science, engineering, and IT, starting from their 4th year of undergraduate studies up to the 1st year of PhD. Selected students are invited to 6–8-week onsite advanced-level internship to work on solving real scientific and engineering tasks under the guidance of our leading experts.
students.jinr.ru

Students from all over the world take part in the online 4–6-week programme of the JINR University Centre for students and post-graduates of scientific and technical specialties, **INTEREST** — **INTE**rnational **RE**mote **S**tudent **T**raining at JINR.
interest.jinr.ru

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Joint Institute for Nuclear Research

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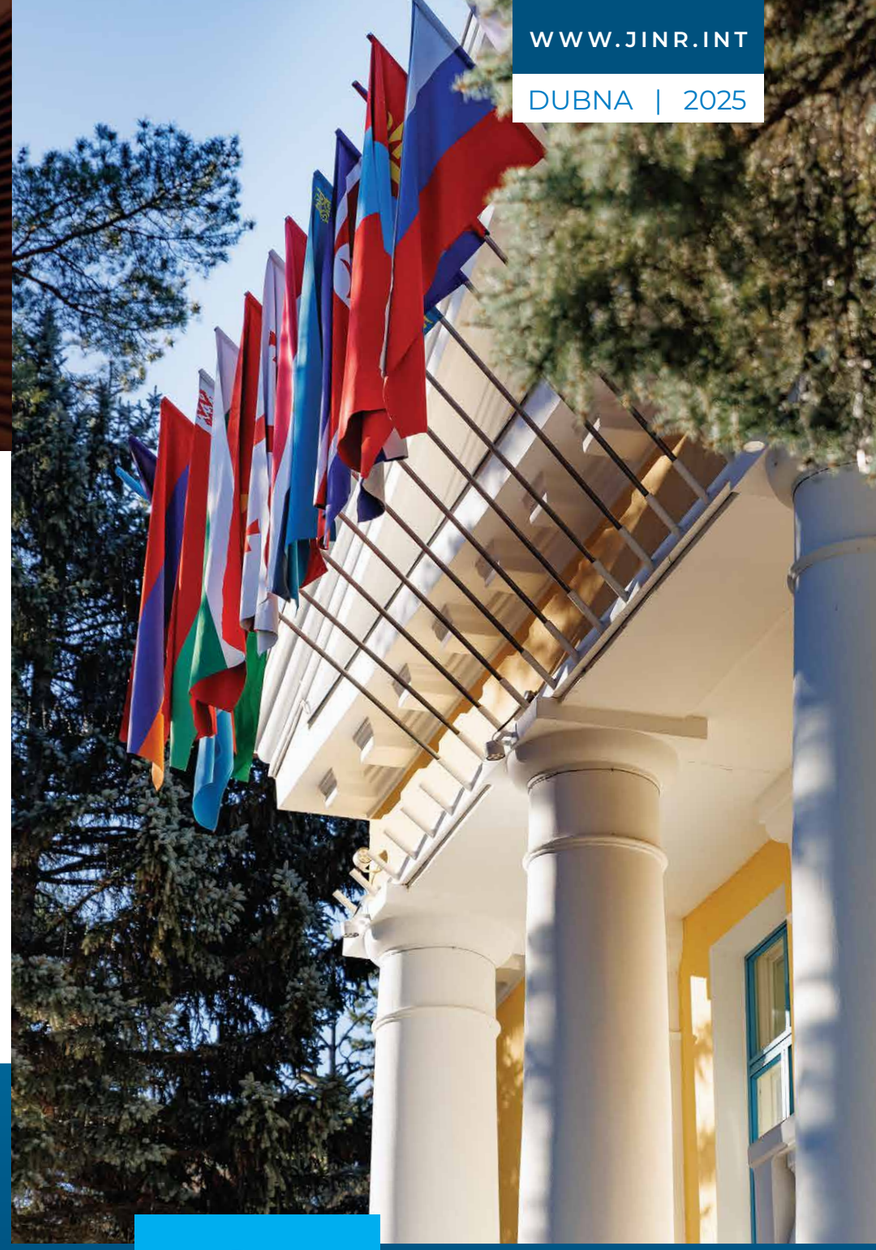

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JOINT INSTITUTE for NUCLEAR RESEARCH

International Intergovernmental Organization

NICA

The NICA Project is a megascience accelerator complex aimed at reconstructing and studying nuclear matter in extreme conditions that occurred in the early stages of the Universe evolution and inside neutron stars.

Currently, joint operation modes of all elements of the collider's heavy ion injection chain have been successfully tested, a record-high intensity of xenon beam at an energy of 3.9 GeV/nucleon has been achieved at the Nuclotron, and extensive data have been collected at the BM@N Facility. The assembly of the collider's magnet cryostat system is almost finished, and preparations are underway for its testing.

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At the DC–280 Cyclotron of **the Superheavy Element Factory accelerator complex**, record beam parameters of accelerated heavy ions have been achieved. Hundreds of events have been collected that allow studying properties of superheavy elements (SHE), thus bringing scientists closer to the synthesis of elements 119 and 120.

The scientific infrastructure of **the SHE Factory** is gradually improving. In addition, U–400 and U–400M accelerators are developing, a new DC–140 Facility is under construction for applied research in track membranes and materials science.

10 NEW elements of the Mendeleev's Periodic Table have been discovered at JINR

*FLNR JINR Scientific Leader **Yuri Oganessian** was awarded the UNESCO–Russia Mendeleev International Prize*

The deep underwater Baikal–GVD Neutrino Telescope is a part of the global net for research in neutrino astrophysics, one of the three largest in the world in terms of efficient area and volume for observation of natural neutrino fluxes. The facility is the largest in the Northern Hemisphere. The telescope has reached the effective volume of 0.7 km^3.

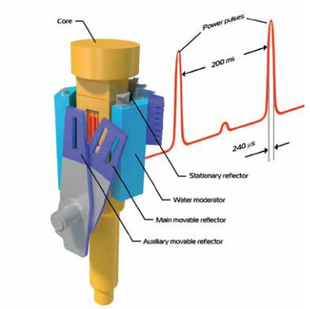
more than **60** scientists & engineers

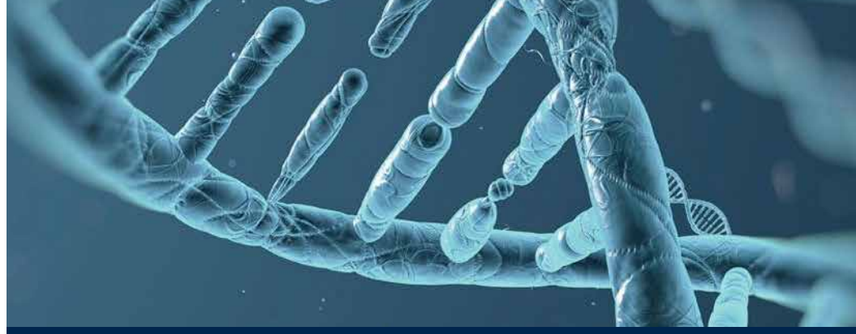
from **9** international research centres

*An optical module of the deep underwater **Baikal–GVD** Neutrino Telescope at Lake Baikal*

The scientific complex of the IBR–2 Pulsed Neutron Source is under development.

The number of applications for experiments as part of its user programme to address a wide range of tasks in condensed matter physics, nuclear medicine, and ecology has increased. An ambitious project to create a new neutron source is being developed.





The achievements of JINR radiobiologists demonstrate unique prospects for nuclear physics methods in solving related problems of life sciences, radiation therapy of cancer, and space radiobiological research.

Work is actively progressing with the use of various nuclear physics methods to solve tasks in ecology, materials science, archeology, medicine, studies of art and extraterrestrial objects. Scientists of the Institute have achieved important results in a new field — research of biohybrid nanocomplexes to create remedies of a new generation to fight microorganisms resistant to antibiotics or those that have high potential against localised cancer tumours.

In information technologies, efforts are focused on the advanced development of the Multifunctional Information and Computer Complex that combines all state-of-the-art information technologies, namely network infrastructure and the distributed data processing and storage system based on grid technologies, cloud computing, the HybriLIT heterogeneous computing platform, including **the Govorun supercomputer**, and robotic systems of data storage.

500+ scientific papers annually

Pioneer research results of Dubna theoreticians in the theory of fundamental particles and interactions, modern nuclear physics and condensed matter physics gained worldwide acknowledgement.