

JINR Newsletter #25, 9 July 2025

Dear colleagues and friends,

Upon completion of the next modernisation stage, the Govorun Supercomputer's peak performance is 2.2 Petaflops. This opens up broad opportunities for the introduction of machine learning methods into the JINR research programme. The upgrade was discussed at the ongoing GRID'2025 international conference, which gathered almost 300 participants at the Laboratory of Information Technologies at JINR.

JINR is also hosting the Superconducting and Magnetic Hybrid Structures workshop this week. Participants are discussing physical phenomena significant not only for theoretical physics, but also for applied tasks, as the basic research of today is the technology of tomorrow.

At the NAUKA 0+ popular science festival, Brazilian youth learned about the JINR infrastructure and engagement programmes, which provide opportunities for participating in the Institute's projects and potentially securing a job. Read about this and much more in the latest issue of the JINR Newsletter.



Cooperation

JINR researchers introduced Brazilian youth to Institute's scientific programme

The international NAUKA 0+ festival took place in Rio de Janeiro as part of the BRICS+ Open Science Week. The JINR booth featured a multimedia exhibition about the Institute's key projects. In addition, guests could take virtual tours of the main facilities and learn about how they operate.



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Conferences

Superconducting and Magnetic Hybrid Structures workshop started at BLTP at JINR

The international event is taking place from 7 to 10 July. Participants are discussing physical phenomena significant not only for theoretical physics, but also for technology, particularly electronics, low-dissipation computing, and quantum information systems.



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NUMAR-Gobi 2025 international school finished in Mongolia

The event aimed to attract young specialists to the topics of the applied research conducted by the Joint Institute and its partners from Mongolia. The organizers were JINR, the Nuclear Energy Commission under the Government of Mongolia, the National University of Mongolia, and the Mongolian Academy of Sciences.

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Main Facilities

Performance of Govorun Supercomputer for AI tasks increased by more than third

Upon completion of the next modernisation stage, the facility's peak performance is 2.2 Petaflops. This opens up broad opportunities for the introduction of machine learning methods into the JINR research programme. The facility was upgraded by the Laboratory of Information Technologies at JINR and the RSC Group.



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Books

New Book Acquisitions exhibition in S&T Library

From 30 June to 18 July, the JINR Science and Technology Library is hosting the New Book Acquisitions exhibition. Visitors can find the Annual JINR Report, a monograph by Evgeny Krasavin, Conversations with Scientists book dedicated to the 70th JINR anniversary, and various textbooks on physics, mathematics, and materials science.

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Media

GRID'2025 international conference taking place at MLIT

Experts from JINR, CERN, Russia, China, France, Mexico, and other countries are discussing the progress and future role of grid technologies. The conference will last until 11 July. You can listen to the plenary talks online [via the link](#).



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Lectures and master classes of Archival Impulse summer school and laboratory

Join the school's free events from 6 to 12 July. You can listen to lectures on Soviet science and technology at the JINR Scientists' Club or take part in 10 discussions and master classes to learn about the basics of archiving at the Institute's Museum and Library.

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DLNP researchers at educational programme

As part of the Big Challenges programme at the Sirius Educational Centre, schoolchildren are creating and testing a prototype of a modular muon detector. Employees of the Laboratory of Nuclear Problems at JINR are actively participating in the event.



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JINR took part in creating Art & Science Spots installation

Until 26 July, the Russian Museum is hosting the Empathy Machines exhibition, featuring 13 projects at the intersection of science and art. One of the installations was made with the supervision of the Institute's researchers. A DLNP JINR junior researcher Mikhail Zarubin shared his experience of participating in the project.

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A day in JINR history

Every week, the JINR Telegram channel shares archival photos of the Institute. We invite you to look at participants of the International Symposium on Nuclear Structure relaxing on a motor ship's deck, photographed 57 years ago, in July 1968.



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JINR at Congress of Councils of Young Scientists and student scientific societies

The Institute's young researchers participated in the rich business programme, which included more than 70 events in the most important modern areas of science. A DLNP researcher Vladislav Rozhkov took part in a panel discussion on cooperation between youth scientific communities.

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Joint Institute and Skoltech discuss collaborative work on medical innovations

JINR representatives visited the Skolkovo Institute of Science and Technology on 8 July. The parties exchanged expertise and spoke about joint research in biomedical technologies.

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Weekly JINR Newspaper issued

A new issue of the Weekly JINR Newspaper #25 has been published. Please note that you can read an English version on the JINR Newspaper's website.

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Upcoming Events

Conferences

- [7–10 July. Superconducting and Magnetic Hybrid Structures international workshop. BLTP, JINR, Dubna](#)
- [7–11 July. 11th International Conference "Distributed computing and Grid technologies in science and education". MLIT, JINR, Dubna](#)

Training

- [2–12 July. Element 105 summer school and workshop. Dubna](#)
- [6–12 July. Archival Impulse Summer School by JINR. Higher School of Economics, and Archives of the Russian Academy of Sciences. UC, JINR, Dubna](#)
- [7–11 July. Scientific school for physics teachers from the JINR Member States. JINR, Dubna](#)
- [11–18 July. 25th Baikal International Summer School on Physics of Elementary Particles and Astrophysics. Bolshie Koty, Irkutsk Region, Russia](#)
- [July - November. START-2025 student programme, summer session. JINR, Dubna](#)

Seminars

- [10 July, 11:00 AM. VBLHFP. "Fabrication of semiconductors using SNPs synthesised from SiO₂ extracted from agricultural waste" by Ntombizzone Kheswa](#)
- [10 July, 3:30 PM. FLNR. Discussion of proposals for experiments in autumn 2025 by Alexandr Virikhin, Alexey Bogachev](#)
- [14 July, 3:30 PM. BLTP. "The nuclear fusion reactions in astrophysics and the reaction rates within the extended quantum diffusion approach" by Vazgen Sargsyan](#)
- [15 July, 3:00 PM. MLIT Dissertation Council. "Methods and software tools for creating an electronic information and educational environment to support scientific research in JINR" by Nikita Sidorov](#)
- [16 July, 11:00 AM. DLNP. "Development of precision wire detectors and creation of a facility for studying muon decays" by Yuri Davydov](#)

Culture

- [17 June – 13 July. Daily from 1:00 to 7:00 PM \(except Monday\). JINR Mir Cultural Centre. Art exhibition by Anastasia Verner and Arina Belyaeva](#)
- [15 July – 10 August. Daily from 1:00 to 7:00 PM \(except Monday\). JINR Mir Cultural Centre. Painting exhibition](#)
- [10 July, 6:00 PM. JINR Universal Public Library. JINR Cinema Club](#)
- [12 July. Novaya Opera theatre. Trip by JINR Scientists' Club](#)

[ALL JINR EVENTS →](#)