

JINR Newsletter #9, 6 March 2024

Dear colleagues and friends,

As part of collaboration, the Institute has developed a prototype of an intelligent system for analysing the behaviour of laboratory animals.

Discussions on the development of cooperation with scientific organizations in Brazil, Cuba, and Russia took place. As one of the leaders in the synthesis of superheavy elements, JINR participated in several media projects marking the 155th anniversary of the Mendeleev's Periodic Table, which is celebrated on 1 March in the JINR's location country.

Postdoctoral vacancies, noteworthy conferences and grants, and much more in the latest issue of the JINR Newsletter.

JINR Press Office



Research

JINR and SUSU developed software analysing behaviour of laboratory animals

Researchers from South Ural State University, LRB and MLIT at JINR have developed a prototype of a system based on neural network for analysing the behavioural patterns of small laboratory animals. The new software analyses video recordings of experiments, reducing the subjectivity factor.



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JINR receives new certificate of software state registration

The energy is titled "The View_KEE_KSH program for remote control of the collider energy evacuation keys" and is designed to control the operation of the collider energy evacuation keys and collider shunt keys in real time.

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Celebrating Periodic Table's 155th anniversary

Interview with JINR scientists

In the beginning of February, the festival to celebrate the birthday of Dmitry Mendeleev, Mendeleev Days, took place in Tobolsk. One of the lecturers was FLNR JINR Scientific Secretary Alexander Karpov. Together with Academician Yuri Oganessian, he answered the questions of the event organizers.



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Interview with JINR scientist for Science and Life journal

Marking the 155th anniversary of the Mendeleev's Table, FLNR JINR Scientific Secretary Alexander Karpov gave an interview to the Science and Life journal about why it is necessary to fill out the Table, how to do it, and what role JINR plays in the process.

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Cooperation

Cooperation with Brazil discussed at JINR

On 28 February, a Brazilian delegation headed by State Secretary for Policy and Strategic Programmes at the Ministry of Science, Technology and Innovation of Brazil Márcia Barbosa visited JINR. The parties expressed interest in cooperation in almost all areas of fundamental and applied research.



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JINR-Cuba applied research and human development meeting took place in Havana

The event was held on 1 March under the chairmanship of the Plenipotentiary Representative of Cuba in JINR Dr. Gonzalo Walwyn Salas. Heads of several research institutes of Cuba, as well as young scientists attended the meeting.

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Education

Students and teachers of Moscow State University at MLIT at JINR

On 28 February, the Laboratory of Information Technologies at JINR hosted 3-5-year students and teachers of Lomonosov Moscow State University. The guests listened to presentations by the leading MLIT scientists, visited the JINR Multifunctional Information and Computing Complex, and the JINR Basic Facilities interactive exhibition.

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JINR hosts city robotics competitions

On 24–25 February, the Dubna 2024 Hackathon took place at the Academician V. G. Kadyshcheyev Physics and Mathematics Lyceum. The event aims to preserve and develop the engineering and technical environment in the Moscow Region among students and teachers.

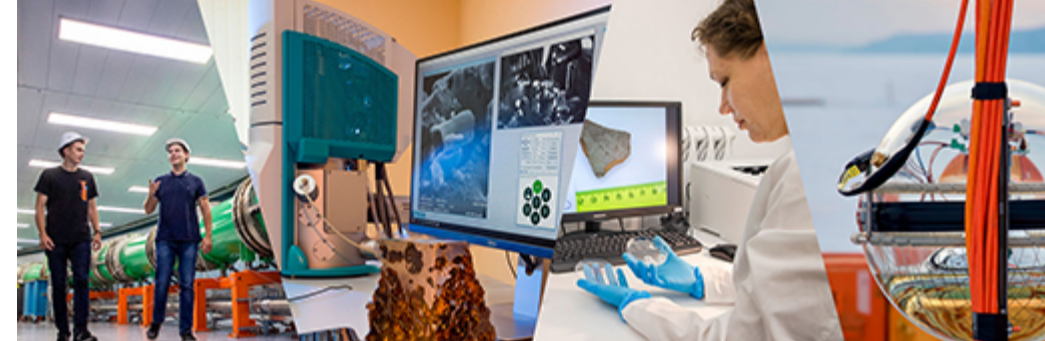


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Announcements

Call for applications for JINR Postdoc Programme

The Programme provides an opportunity for talented early-stage researchers to get involved in the forefront international projects of the scientific and technical progress at JINR in Dubna. Applications are being accepted until 1 April.



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Pre-registration to Master's programme at MSU branch

In 2024, the admission to two Master's programmes in physics at the JINR-based Moscow State University branch in Dubna has been announced. You can pre-register on the [website](#) of the branch or send an e-mail to prjem@msu.dubna.ru. For detailed information please see the full post.

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Registration for CMT conference

On 15–19 July, the Modern Problems of Condensed Matter Theory (CMT 2024) conference will take place at the Laboratory of Theoretical Physics of JINR. You can [register](#) and [send](#) your abstract until 1 June inclusive.

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Call for applications for Vyzov Award

The award aims to recognize breakthrough ideas and inventions that are changing the landscape of modern science and people's lives. Scientists, inventors, engineers, and research teams can submit their applications via the [website](#) until 20 May 2024.

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Registration for FAGRAN-2024 conference

The All-Russian conference "Physical and chemical processes in condensed matter and at interphase boundaries" (FAGRAN-2024) will take place on 23–25 September 2024 at Voronezh State University. It will be dedicated to the 190th anniversary of Dmitry Mendeleev. Applications can be submitted via the [website](#) until 1 April 2024.

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Basis Foundation opens applications for grant competitions for theoretical physicists

Scientific groups consisting of a leading researcher and young scientists conducting theoretical studies in fundamental physics can apply until 21 March. Individual PhD candidates, postdoctoral researchers, and young scientists can apply until 25 April. Please see detailed information in the full post.

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Registration for Physics-2024 conference

The Physics-2024 International Forum will take place on 23–25 April 2024 at Samarkand State University. Participants will discuss the current state and prospects for the development of new areas of physics. Applications can be submitted via the [website](#) until 15 March 2024.

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Media

Documentary: Nikolai Bogoliubov. Two temples

The Culture TV channel has released a documentary about the first BLTP JINR director Nikolai Bogoliubov. The film presents the story of how the mathematician who came to physics in 1940s with nothing but a postgraduate diploma created three scientific schools, and about the two temples along the road to which he spent his life.

[WATCH →](#)

AYSS event digest

The Association of Young Scientists and Specialists has published the event digest for February 2024: the Dissertation Club opened, the Association members received awards of the Governor of the Moscow Region, the next series of practical classes on public speaking started, the JINR Scientists' Club hosted several AYSS seminars.

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March wallpapers for your smartphones

A new issue of JINR wallpaper features rutherfordium, an element with atomic number 104, synthesized in 1964 at JINR. Researchers suggest that the element could be a promising replacement for hafnium, a rare-earth metal used in the aerospace, nuclear, and optical industries.



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Filming at VBLHEP at JINR

The Dubna TV Channel visited the MPD experimental hall at the NICA Collider to interview VBLHEP JINR employees Konstantin Mukhin and Dmitry Terehin about the cooling of the solenoid of the multipurpose detector.

[WATCH →](#)

JINR scientist gave lecture at Irkutsk school

On 4 March, the Grand Planetarium of Irkutsk School No. 19 hosted a lecture by DLNP JINR Deputy Director Dmitry Naumov, "Gravitational Waves. Echoes of the Universe." More than 100 school students, participants of physics and astronomy Olympiads, gathered in the hall of the Planetarium.

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Diary of participant of Baikal-GVD Expedition

The expedition to deploy the Baikal-GVD Deep Underwater Neutrino Telescope continues. Every day the project participant, DLNP JINR Senior Researcher Blair Shaibonov, writes notes about the progress of work on Lake Baikal. Please enjoy the expedition news and photos.

[DAY 13 →](#)

[DAY 14 →](#)

[DAY 15 →](#)

[DAY 16 →](#)

[DAY 17 →](#)

[DAY 18 →](#)

[DAY 19 →](#)

Seminar recordings

We offer you to watch recordings of seminars "Cluster dynamics in heavy ion collisions"¹ by Victor Kireev, "Development of neutron diffraction research at IBR-2²" by Anatoly Balagurov, and "Polarized neutron reflectometry"³ by Victor Aksenov.

[WATCH¹ →](#)

[WATCH² →](#)

[WATCH³ →](#)

Video about past week JINR events

We offer you to watch a video review of recent events from the life of the Institute.

[WATCH →](#)

JINR Weekly Newspaper issued

A new issue of the JINR Weekly Newspaper #9 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

- **11 – 15 March. 24th JINR Training Course "JINR Expertise for Member States and Partner Countries" (JEMS-24)**

Seminars

- **7 March, 3:00 PM. Online in Zoom. "Orbital molecules in oxides" by Paul Attfield**
- **11 March, 10:00 AM. VBLHEP. "Colliders" lecture series. Review by Valery Lebedev**
- **11 March, 11:00 AM. BLTP Journal Club. "Gravity helps show strong force strength in the proton" by Chitta Ranjan Davy**
- **13 March, 11:00 AM. LRB. "Modifying effect of 1-β-D-arabinofuranosyl-cytosine on immune status of rodents in long-term period under influence of protons" by Yuri Severyukhin and "Mathematical model of radiation-induced damage in cells of central nervous system" by Batmunkh Munkhbaatar**

Culture

- **12 February – 15 March, weekdays from 2:00 to 7:00 PM. JINR Scientists' Club. Art exhibition of Vlad Kravchuk**
- **20 February – 17 March, daily from 1:00 to 7:00 PM (except Monday). JINR Cultural Centre "Mir". Colours of Time exhibition**
- **6 March, 6:00 PM. JINR Museum of History of Science and Technology. Dmitry Blokhintsev poetry recital**
- **7 March, 7:00 PM. JINR Universal Public Library. Hairpin book club**
- **8 March, 6:00 PM. JINR Cultural Centre "Mir". "From Chicago to Marmma Mia" musical performance**
- **10 March, 4:00 PM. JINR Cultural Centre "Mir". Colours of Time exhibition. Meet-and-greet session**
- **10 March, 6:00 PM. JINR Cultural Centre "Mir". "Swan Lake" ballet**
- **12 March, 7:00 PM. JINR Universal Public Library. Genealogical club's meeting**

Sports

- **13 March, 7:00 PM. JINR Nauka Stadium. Darts competition**

[ALL JINR EVENTS →](#)