

SCIENCE BRINGS NATIONS TOGETHER



JOINT INSTITUTE FOR NUCLEAR RESEARCH

JINR Newsletter #34, 17 November 2022

Dear colleagues and friends,

The week turned out to be rich in events, as always at our international Institute! The NICA Collider received the first elements of the electron cooling system necessary for high luminosity. The performance of the Govorun Supercomputer increased by almost a quarter after modernisation.

The second meeting of directors of Information Centres was held. Heads of Infocentres operating in Russia gathered in Dubna. The NOSU Rector took part in the first JINR Autumn IT School at MLIT and also met with leaders of the Institute and directors of laboratories.

Read about this and much more in the new issue of the JINR Newsletter!

JINR Press Office



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Breaking News

NICA Collider received first elements for electron cooling system

The first elements of the electron cooling system (ECS) of the NICA Collider arrived in Dubna. ECS will ensure high luminosity of NICA in the future. Budker Institute of Nuclear Physics of SB RAS sent to Dubna a special 5.1 meter high tank weighing 7 tons and the solenoids that create a longitudinal magnetic field in which an electron beam is formed and transported.



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Govorun Supercomputer modernised

On 14 November, the opening of the modernised Govorun Supercomputer was

held at the Meshcheryakov Laboratory of Information Technologies. The performance of the Supercomputer was increased by 23.5% and reached the level of 1.1 petaflops. To do this, specialists added 32 ultra-modern modules. The modernisation enables efficient data processing for all tasks performed at the Institute.

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Visits

Rector of NOSU visited JINR

On 14–15 November, Rector of North Ossetian State University (NOSU) Alan Ogoev visited JINR. A number of working meetings were held with leaders of the Institute and directors of laboratories participating in joint scientific and educational projects.



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JEMS

Network of JINR Information Centres will expand

As part of the JEMS-21 Training Programme, participants of the 2nd meeting of directors of JINR Information Centres discussed the role and opportunities of IC in coordinating scientific interaction between universities and the Institute, the importance of Infocentres for the development of international cooperation. Representatives of scientific groups of the RSA, Vietnam, and Uzbekistan attended the event and expressed their interest in creating JINR Infocentres in their countries.



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Interaction between universities and JINR discussed at round table

On 9 November, participants of the JEMS-21 Training Programme took part in the round table "Interaction between JINR and universities. JINR Information Centres, Educational Programmes of UC". They discussed possible cooperation formats with JINR representatives.

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Research

MONUMENT data set run 2022 finished

In the MONUMENT experiment, initiated by DLNP researchers, another data set run has come to an end. This year it began in September, lasted almost a month and a half, and included both online and offline measurements. JINR scientists played a key role in the project. They were involved in all stages of the work, from building the measurement facility to analysing and obtaining the final data. The MONUMENT project is an important addition to the extensive programme of studying double beta decay processes.

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Conference

JINR Autumn School of Information Technologies

On 14 November, the first JINR Autumn School of Information Technologies started at the Laboratory of Information Technologies. The School is being held for the first time and aims to involve young specialists in solving problems in various fields of science using modern information technologies. The event is being held for students from 13 universities on 14 - 19 November at MLIT.



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JINR Community

New AYSS seminar

The Association of Young Scientists and Specialists of JINR invites you to a new seminar at the JINR Scientists' Club! Vladimir Zhaketov (BLTP) will deliver a report "Neutron optics and magnetic heterostructures". He will speak about the work principle of polarised neutron reflectometry and application examples of neutron reflectometry at the REMUR polarised neutron spectrometre.



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JINR Cinema Club

This Saturday, on 19 November, you can enjoy watching an interesting film "Leto" by a Russian film director Kirill Serebrennikov. All are kindly invited!

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Recalling founders

Horia Hulubei

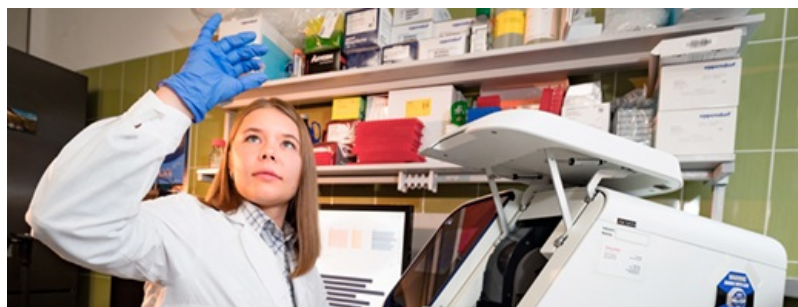
On 15 November, the Joint Institute for Nuclear Research pays tribute to the prominent Romanian physicist Horia Hulubei (1896 – 1972). He played an important role in the establishment of the Joint Institute for Nuclear Research and the development of its international cooperation, being the Plenipotentiary Representative of the Government of Romania in JINR and a member of the JINR Scientific Council.

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Announcements

Lecture at JINR Universal Public Library

On Saturday, 19 November, at 18:00, the JINR Universal Public Library will host a lecture “What are extremophiles and how will they help save humanity?”. Scientists of the Molecular Genetics DLNP Sector have discovered a bacterium, which is resistant to heavy metals and is able to process methanol. In this lecture, we will learn how such properties can be used in biotechnology and bioremediation of soils and waters.



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Opening of exhibition by JINR Artists' Club

The JINR Universal Public Library “Blokhinka” invites to an opening of the first exhibition “Quarks-sparks” by the JINR Artists' Club on 18 November 2022. Quarks because they are charming and unusual. Sparks because they are cool. There will be live music, artists, and art.

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Books

What to read?

We offer you new books in the Science and Technology Library of JINR. There you can find a bibliographic index of scientific papers published by JINR staff members in 2021, an article on Fukushima, monographs on physics, proceedings of the conference, and textbooks on computational intelligence technologies.

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Sports

Winners of XXIX Russian Cup

At the XXIX Russian Cup in the Masters category in Saransk, a coach of the Archimedes Swimming Pool of JINR and the Dubna Sports School Maria Alikina became the winner. She won gold medals in two distances of 100-metre butterfly and 100-metre medley swimming, as well as a bronze medal in the 100-metre breaststroke.



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A VBLHEP staff member Irina Migulina successfully performed at the XXIX Russian Cup in the Masters category in Saransk. She won a bronze medal in two distances of 50 and 200-metre breaststroke.

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Media

Supersymmetry and going beyond the Standard Model

Watch an interview with Director of the Laboratory of Theoretical Physics JINR, RAS Corresponding Member Dmitry Kazakov about particle physics. In the interview, the question of expanding the Lorentz group is discussed.



WATCH →

At 10th Collaboration Meeting of the MPD Experiment

Watch a video about the 10th Collaboration Meeting of the MPD Experiment at the NICA Facility. Participants spoke about the status of works and plans for the future.

WATCH →

At anniversary of Laboratory of Neutron Physics JINR

Watch a video about a jubilee seminar dedicated to the 65th anniversary of FLNP JINR. Participants spoke about the history of the Laboratory's basic facilities and discoveries, as well as the achievements of the outstanding scientists who worked there.

WATCH →

Record of seminar

We offer you to watch the record of the seminar “Overcoming anxiety before public speaking” from a seminar series “Lifehacks of some use for a scientist”, which took place on 11 November, at 11:00 AM. You can learn about reasons and types of fears of public speaking, exercises for overcoming anxiety, and replacing fallacies with effective convictions.

WATCH →

JINR Weekly Newspaper issued

New issue of the JINR Weekly Newspaper #44 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

- [14 – 19 November 2022, JINR School of Information Technologies. MLIT JINR \(mixed format\)](#)
- [21 November 2022, Meeting of the JINR Finance Committee. Hurghada, Egypt](#)
- [23 – 24 November 2022, Session of the Committee of Plenipotentiaries of the Governments of the JINR Member States. Hurghada, Egypt](#)

Seminars

- [17 November 2022, at 4:00 PM, JINR Scientists' Club. AYSS seminar series: "Neutron optics and magnetic heterostructures" by Vladimir Zhaketov](#)
- [17 November 2022, at 11:00 AM, FLNR. "Radio frequency quadrupole ion guide system of the GALS facility" by V. Zhemenuk and "Scientific and applied activity of the group of beams of radioactive nuclei" by S. V. Mitrofanov](#)
- [18 November 2022, at 11:00 AM, DLNP. Lecture of a series of DLNP seminars "Lifehacks of some use for a scientist": "Getting prepared to speak in public" by Oksana Pliskovskaya](#)
- [18 November 2022, at 11:30 AM, VBLHEP. "LHC and portals to dark matter" by Maria Savina](#)
- [21 November 2022, at 11:00 AM, BLTP. "Periods and Feynman amplitudes" by Maxim Bezuglov](#)
- [21 November 2022, at 11:00 AM, MLIT. "CORD \(Closed Orbit Dynamics\): Magnetic and acceleration field map analysis program on the example of MSC230 beam dynamics calculation" by Anatoly Butkevich, "Information technologies of intelligent robust control in robotics and technical systems based on quantum and soft computing" by A. Reshetnikov, and "Algorithms of speeding-up scientific calculations and software for MPD Experiment"](#)
- [22 November 2022, at 11:00 AM, BLTP. "Level densities and survival probabilities of heaviest nuclei" by A. Rahmatinejad](#)
- [23 November 2022, at 11:00 AM, VBLHEP. "Proton polarisation control in spin transparency mode of the NICA collider at integer spin](#)

[resonances” by Yu. N. Filatov](#)

- [23 November 2022](#), at 11:00 AM, DLNP. “Flux-integrated semi-exclusive cross sections for charged-current quasi-elastic and neutral-current elastic neutrino scattering on argon and effects of short-baseline neutrino oscillations” by Anatoly Butkevich

Culture

- [17 November 2022](#), at 7:00 PM. JINR Universal Public Library. Meeting of the book club “Hairpin”: discussing the book “The Lost Apothecary” by Sarah Penner
- [18 November 2022](#), at 7:00 PM. JINR Scientists’ Club. Performance of literary theatre “Word’s Academy”
- [18 November 2022](#), at 7:00 PM. JINR Cultural Centre “Mir”. Arctic Documentary Film Festival. Film “Arctic Voices”
- [18 November 2022](#), at 7:00 PM. JINR Universal Public Library. Opening of exhibition by JINR Artists’ Club
- [19 November 2022](#), at 6:00 PM. JINR Scientists’ Club. JINR Cinema Club
- [19 November 2022](#), at 6:00 PM. JINR Universal Public Library. Lecture “What are extremophiles and how will they help save humanity?”
- [19 November 2022](#), at 7:00 PM. JINR Cultural Centre “Mir”. Performance “Players”
- [20 November 2022](#), at 11:00 AM. JINR Museum of History of Science and Technology. Classes about magnetism in JINR Museum
- [20 November 2022](#), at 6:00 PM. JINR Cultural Centre “Mir”. Rhythms from the New World
- [24 November – 18 December 2022](#), daily from 1:00 to 7:00 PM (except Monday). JINR Cultural Centre “Mir”. Exhibition of macro photography “Hidden Worlds”

For Kids

- [19 November 2022](#), at 5:00 PM. JINR Universal Public Library. Let’s READers

ALL JINR EVENTS →

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