

JINR Newsletter #13, 3 April 2024

Dear colleagues and friends,

Joint implementation of the NICA Project and a number of other scientific areas were discussed during the visit of the delegation of the leading research institutes of China to JINR. NICA also became the subject of a cooperation agreement signed with the Higher School of Economics.

This week, JINR is hosting the Session of the Nuclear Physics Section of the Physics Division of the Russian Academy of Sciences, which brought together about 400 leading scientists.

In Dubna, the summer warmth has changed to the more usual spring coolness. This is a great chance to visit Blokhinka on Saturday for the Clever Networking Festival providing Dubna residents with opportunities for development, creativity, and communication.

JINR Press Office



Cooperation

Issues of scientific cooperation with China discussed at JINR

On 28 March, representatives of the Hefei Institutes of Physical Sciences and the Institute of Plasma Physics of the Chinese Academy of Sciences visited JINR to discuss issues of scientific cooperation and joint participation in international projects. During the visit, Chinese representatives got acquainted with the progress of the NICA construction.



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JINR-HSE agreement: start of systematic cooperation

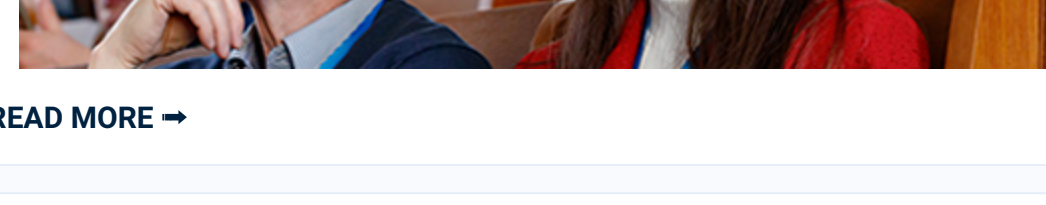
The agreement signed on 29 March between JINR and the Higher School of Economics outlines the key areas of cooperation: joint participation in the main experiments of the NICA Megascience Project, partnership in the fields of theoretical physics, information technology, and personnel training.

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Conferences

Scientific session of Nuclear Physics section of Physics Division of RAS takes place at JINR

The "Physics of Fundamental Interactions" session, dedicated to the 300th anniversary of the Russian Academy of Sciences, started on 1 April. The programme covers the main theoretical and experimental aspects of particle physics and related problems of nuclear physics and cosmology.



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MLIT at JINR hosted section of International Conference "Mathematics in Constellation of Sciences"

The section, organized by the Dubna branch of the Moscow State University, took place on 2 April. It was dedicated to the 85th anniversary of Academician Victor Sadovnichy.

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Flagship Projects

Prior to NICA launch, tasks of injection complex development and personnel training tackled

Works are underway at VBLHEP at JINR. According to the recent reports, late 2024 or early 2025 will see the injection of beam into the collider rings. The injection complex and new stations for applied research using beams extracted from the Nuclotron are under development. Training for future NICA operators is organized.

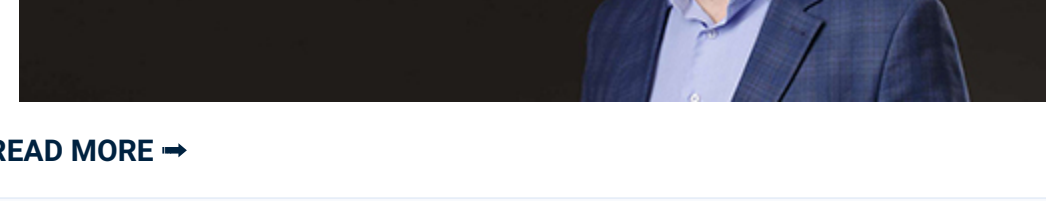


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JINR Youth

Results of elections of AYSS Council Chairman for 2024

On 28–29 March 2024, the elections of the Chairman of the Council of the Association of Young Scientists and Specialists of JINR took place during an AYSS General Meeting. The post will continue to be occupied by Vladislav Rozhkov.



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Research

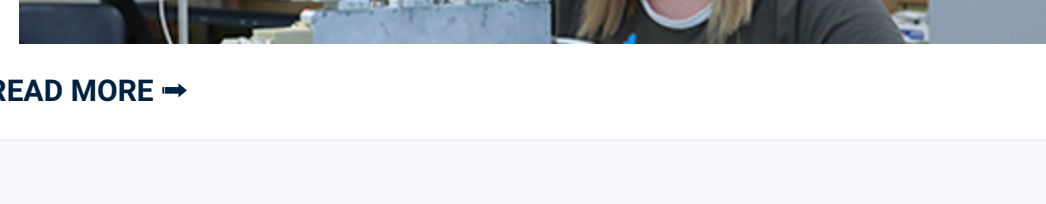
Temperature dependence of band gap of completely fluorinated/hydrogenated carbon nanotubes

We offer to your attention a study by Head of the BLTP, JINR Section of Physics of Nanostructures Vsevolod Kotkov and Head of the BLTP, JINR Department of Condensed Matter Physics Vladimir Osipov, published in the Journal of Experimental and Theoretical Physics Letters.

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FLNP, JINR developed position-sensitive slow neutron monitor

Researchers at the Laboratory of Neutron Physics at JINR developed a detector of thermal and cold neutrons based on a solid-state converter. The new device will have increased radiation resistance compared to analogues, and its service life in the neutron beam will be longer.

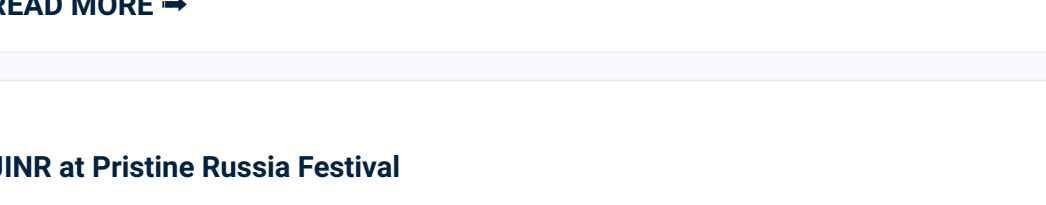


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JINR Social

Additional schooling festival for adults

The event will take place on 6 April, at the JINR Universal Public Library. It aims to bring together the organizers of additional schooling programmes for adults in Dubna. The Clever festival focuses on sports, games, dancing, music, and creativity.



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JINR at Prityakovo Gallery Festival

At the New Prityakovo Gallery, JINR Director Grigory Trubnikov and Deputy Director of the Institute for Nuclear Research of RAS Grigory Rubtsov discussed the Baikalsk-GVD Project. As part of the event, DLNP Deputy Director Dmitry Naumov presented a popular science lecture "Universe in the Baikalsk neutrino telescope".

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Announcements

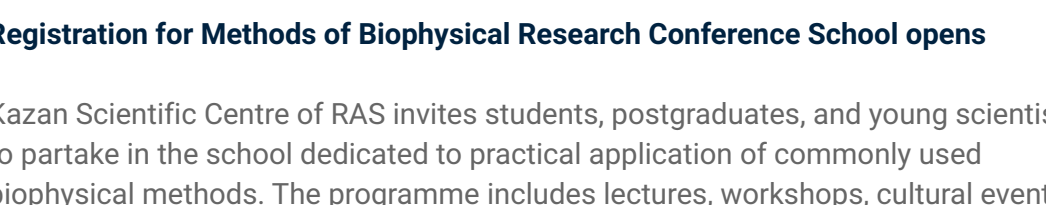
All-Russian School Conference "Fundamental Physics and Applied Technologies" invites applications

The conference will take place on 22–25 April at the Dubna State University and online. The event's programme will include lectures by leading JINR specialists and reports by students, postgraduates, and young researchers. You can register [via the link](#) until 12 April.

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Call for applications for Vyzov Prize for future technologies

The Vyzov National Prize for Future Technologies aims to recognise fundamental breakthroughs, ideas, and inventions that are changing the landscape of modern science and the lives of all people. Please note that this year international applicants also have a chance to win the Prize. You can register [via the website](#) until 20 May.



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Registration for Methods of Biophysical Research Conference School opens

Kazan Scientific Centre of RAS invites students, postgraduates, and young scientists to participate in the school dedicated to practical application of commonly used biophysical methods. The programme includes lectures, workshops, cultural events, etc. You can register [via the website](#) from 1 July until 18 August.

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12th Congress of Young Scientists invites applications

The event, which will take place from 15 to 17 July in Yuzovskoye, aims to engage young scientists in responding to crucial societal and national development challenges. You can register [via the website](#) until 30 April. Please contact ayss@mlit.ru afterwards to notify of your registration.

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Media

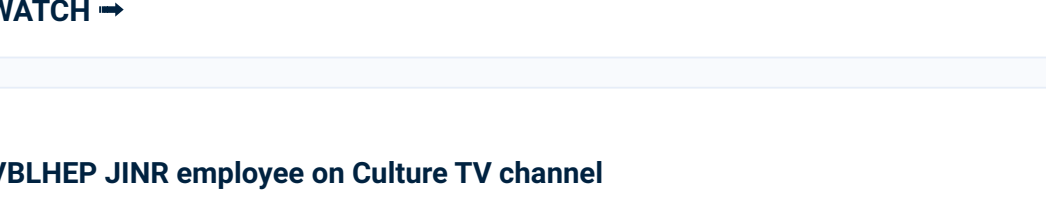
First CP JINR meeting in new seven-year period

We invite you to watch a video about the meeting of the Committee of Plenipotentiary Representatives of the Governments of the JINR Member States that took place on 22 March in Dubna.

[WATCH →](#)

JINR achievements in 2017-2023

At the end of last year, the Joint Institute for Nuclear Research completed its previous seven-year development stage. Watch the video to find out what results the international organization achieved during this period, how JINR has changed, and what it has acquired.



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VBLHEP JINR employee on Culture TV channel

On 23 March, the Culture TV channel released a coverage about the NICA Megascience Project as part of the Black holes. White Spots programme with participation of VBLHEP JINR Deputy Chief Engineer Konstantin Mukhin.

[WATCH →](#)

Diary of participant of Baikalsk-GVD expedition

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

[DAY 42 →](#)

[DAY 43 →](#)

[DAY 44 →](#)

[DAY 45 →](#)

[DAY 46 →](#)

[DAY 47 →](#)

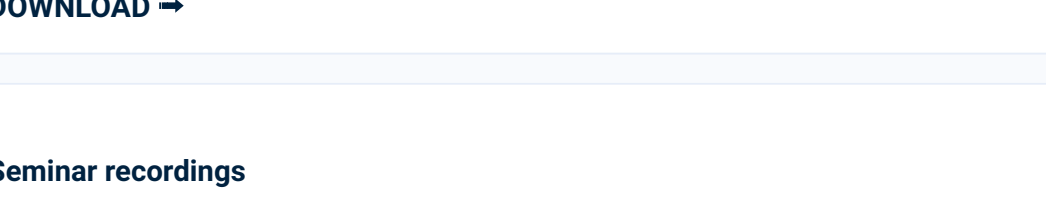
Book by JINR scientist among best works of international book fair

Solar Neutrino by DLNP JINR Deputy Director Dmitry Naumov was chosen as one of the best books of this spring's non-fiction Fair dedicated to high-quality fiction and non-fiction.

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April wallpapers for your smartphones

The spring is truly in the air: the snow is melting, the birds are chirping. For Dubna residents, another sign of spring is the opening of the gates on the Ivankovskaya dam. And the true symbol of Dubna, which made the city famous all over the world, is dubnium.



[DOWNLOAD →](#)

Seminar recordings

We offer you to watch recordings of seminars "Bose-Einstein correlations of charged pions in collisions of gold nuclei at $v_{RHIC} = 3.0$ GeV in STAR experiment" and "Femtoscopic correlations of identical pions in Au+Au collisions at $\sqrt{s_{NN}} = 2.2, 3.5, 3.9$ GeV in STAR experiment at RHIC Collider" by Anna Kravva and Vinh Luong, "Development of detector systems and methods for registration and identification of particles for accelerator experiments" by Yuri Davydov, and "Roentgenology of 21st century: hybrid pixel detectors, energy-sensitive computed tomography, and composite contrasts" by Denis Shashurin and Evgeniya Suslova".

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[WATCH? →](#)

Video about past week JINR events

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

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JINR Weekly Newspaper issued

A new issue of the JINR Weekly Newspaper #12 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

- **1 – 5 April**, Scientific session of Nuclear Physics section of Physics Division of RAS "Physics of Fundamental Interactions".

Seminars

- **4 April, 11:00 AM, FLNP**, "Features of structure of exotic nuclei" by Igor Sosnov, "Numerical modeling of processes in FCR sources of multicharged ions" by Vladimir Mitonov
- **4 April, 3:00 PM, FLNP**, "Radiobiological research at JINR facilities" by Aleksander Buzov
- **5 April, 11:00 AM, FLNP**, "Some aspects of thermophysical calculations of fuel rods and fuel assemblies using example of NEPTUNE reactor" by Maksim Podlesny
- **5 April, 11:30 AM, VBLHEP**, "Study of n - and K -meson production processes in 3.2 AGeV ^{40}Ar nucleus interactions in BMJIN Experiment at Nuclotron" by Vasily Potokov
- **8 April, 10:00 AM, VBLHEP**, "Colliders" lecture series. Review by Yalaly Lebedev
- **8 April, 11:00 AM, BLTP, Journal Club**, "Evidence for intrinsic charm quarks in the proton" by Chitta Banjan Das

Culture

- **21 March – 21 April**, Daily from 1:00 to 7:00 PM (except Mondays), JINR Cultural Centre "Mir", "Enchanted by science" exhibition
- **3 April, 7:00 PM**, JINR Cultural Centre "Mir", Dubna Symphony Orchestra concert
- **4 April, 6:00 PM**, JINR Universal Public Library, JINR Cinema Club
- **4 April, 7:00 PM**, JINR Universal Public Library, Hairpin book club
- **5 April, 6:00 PM**, JINR Universal Public Library, English speaking club
- **5 April, 7:00 PM**, JINR Universal Public Library, Lecture on modern art
- **6 April, 10:00 AM**, JINR Cultural Centre "Mir", Dance competition
- **6 April, 5:00 PM**, JINR Universal Public Library, Additional schooling festival for adults
- **9 April, 7:00 PM**, JINR Universal Public Library, Genealogical club's meeting

Sports

- **6 April, 10:00 AM**, JINR Nauka Stadium, Table tennis tournament in memory of Grigory Asryan

For Kids

- **5 April, 4:00 PM**, JINR Universal Public Library, "Times and epochs" children's history project
- **5 April, 6:00 PM**, JINR Universal Public Library, Meeting of book club for teenagers
- **6 April, 1:00 PM**, JINR Universal Public Library, Meeting of debating club for teenagers
- **6 April, 4:00 PM**, JINR Universal Public Library, Children's research project "Archimedes' Pear"
- **6 April, 5:00 PM**, JINR Universal Public Library, "Let's READers"

[ALL JINR EVENTS →](#)