

JINR Newsletter #46, 5 December 2024

Dear colleagues and friends,

Last week was full of remarkable events. A JINR delegation paid a working visit to the Republic of Azerbaijan, during which an agreement was signed with Khazar University. In Hungary, JINR, Debrecen University, and the Institute for Nuclear Research (ATOMKI) signed a cooperation agreement.

JINR researchers participated in a series of significant scientific forums, from Brazilian Campinas to Russian Sirius. SynchLight 2024 international school in Brazil and the Young Scientists Congress in Russia.

Please enjoy the December edition of the JINR wallpapers, new publications, announcements of interesting lectures, and much more in the latest issue of the JINR Newsletter!



Cooperation

JINR, University of Debrecen, and Institute of Nuclear Research to expand cooperation

A trilateral agreement has been recently signed between JINR, the University of Debrecen, and the Institute of Nuclear Research (ATOMKI) in Debrecen, Hungary. The document is aimed at strengthening ties in personnel training, academic mobility programmes, collaborative research, and organization of joint events, including training courses and conferences.



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JINR in Baku: new cooperation opportunities

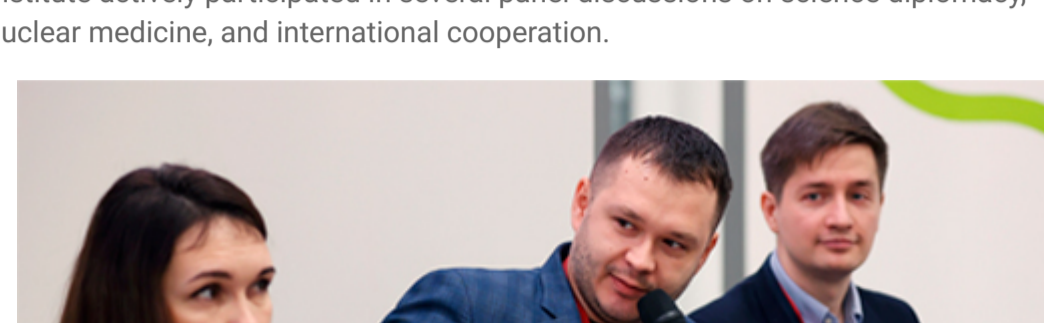
A delegation of the Joint Institute headed by JINR Director Grigory Trubnikov visited the Republic of Azerbaijan to participate in a number of high meetings. The signing of a cooperation agreement between JINR and Khazar University was one of the visit's highlights.

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Conferences

JINR at 4th Young Scientists Congress

From 27 to 29 November, Sirius (Russia) hosted the 4th Young Scientists Congress, which gathered specialists of more than 60 countries. A delegation of the Joint Institute actively participated in several panel discussions on science diplomacy, nuclear medicine, and international cooperation.



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Specifics of working with physics experiments' data discussed at MIPT

This week, the school and workshop on new methods of physics experiments' data, jointly organized by JINR and Moscow Institute of Physics and Technology, is taking place in Dolgoprudny, Russia. The event aims to bring together different research groups to develop new concepts for processing large amounts of data.

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JINR at school on synchrotron techniques in Brazil

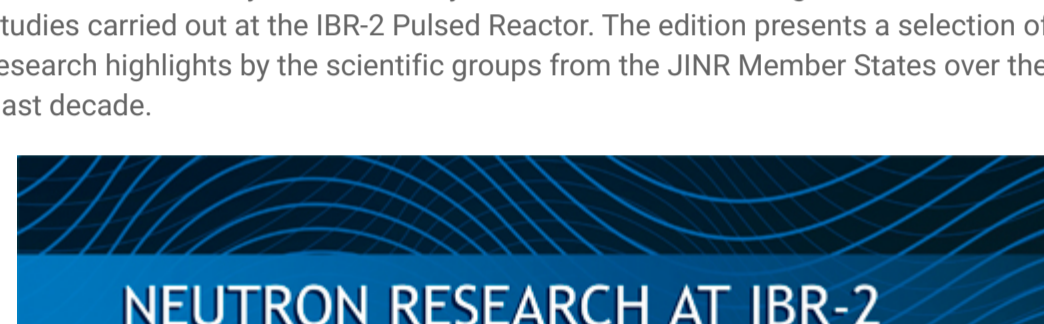
SynchLight 2024, the international school of advanced science on synchrotron techniques, took place from 14 to 25 October 2024 in Campinas, Brazil. Young FLPN JINR employees participated in the event: they contributed to the discussion of current scientific problems and the development of international partnership.

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Publications

FLNP JINR booklet on neutron research at IBR-2 published

The Frank Laboratory of Neutron Physics at JINR released a digest about neutron studies carried out at the IBR-2 Pulsed Reactor. The edition presents a selection of research highlights by the scientific groups from the JINR Member States over the past decade.



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Announcements

Lecture on history of quantum mechanics

On 5 December, at 5:00 PM, at the JINR Scientists' Club, JINR employees Alexey Zhemchugov and Elena Badavy will discuss the Symposium on the History of Modern Physics held in China and talk about possible approaches to the study of the history of science at the Joint Institute.

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Mini lectures by LRB JINR scientists

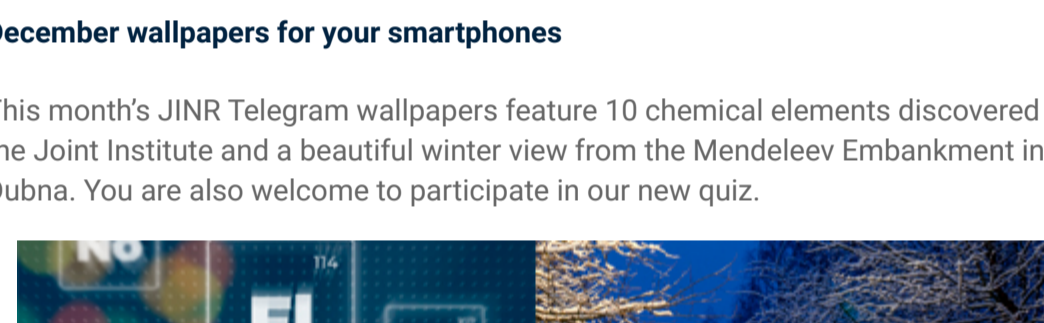
What secrets are hidden in DNA? Is there extraterrestrial life? How radiation helps cure cancer? Employees of the Laboratory of Radiation Biology at JINR will answer these and many other questions on 6 December at 6:30 PM at the JINR Universal Public Library.

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Media

December wallpapers for your smartphones

This month's JINR Telegram wallpapers feature 10 chemical elements discovered at the Joint Institute and a beautiful winter view from the Mendeleev Embankment in Dubna. You are also welcome to participate in our new quiz.



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AYSS event digest

Please enjoy the November issue of the AYSS digest to find out about the latest events in the life of the Association of Young Scientists and Specialists at JINR.

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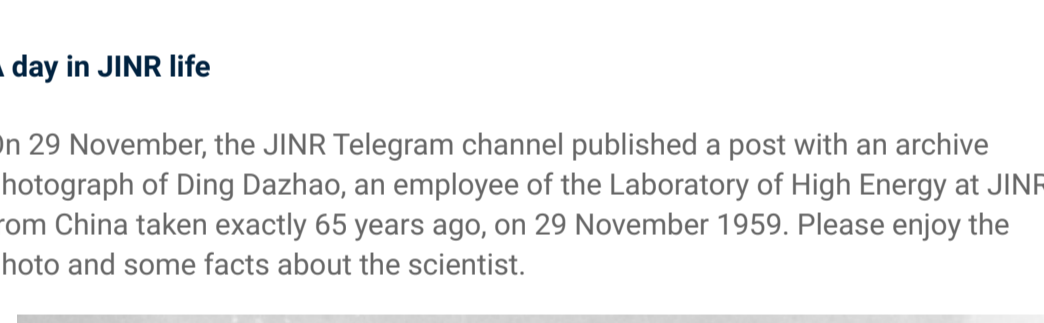
Exhibition marking DLNP JINR 70th anniversary

Everyone interested are welcome to visit the JINR Mir Cultural Centre from 28 November to 22 December to enjoy the exhibition dedicated to the anniversary of the Laboratory of Nuclear Problems at JINR covering its history from the very beginning.

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A day in JINR life

On 29 November, the JINR Telegram museum published a post with an archive photograph of Ding Dazhao, an employee of the Laboratory of High Energy at JINR from China taken exactly 65 years ago, on 29 November 1959. Please enjoy the photo and some facts about the scientist.



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JINR in search for young minds

In November, employees of laboratories and the University Centre at JINR visited leading Russian universities to help young people choose their future career. In addition, the Institute's scientists participated in the career-counselling event that was organized in the Dubna Special Economic Zone for schoolchildren.

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Seminar recordings

We invite you to watch recordings of seminars "Search for spin-dependent fifth forces in whispering neutron gallery effects"¹ by Alexey Voronin, "Studying gamma background variations using an LVD scintillation detector"² by Ekaterina Dobrynya, and "New quantum-mechanical effect and its application in generation of twisted particle beams"³ by Alexander Silenko.

[WATCH¹ →](#)

[WATCH² →](#)

[WATCH³ →](#)

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

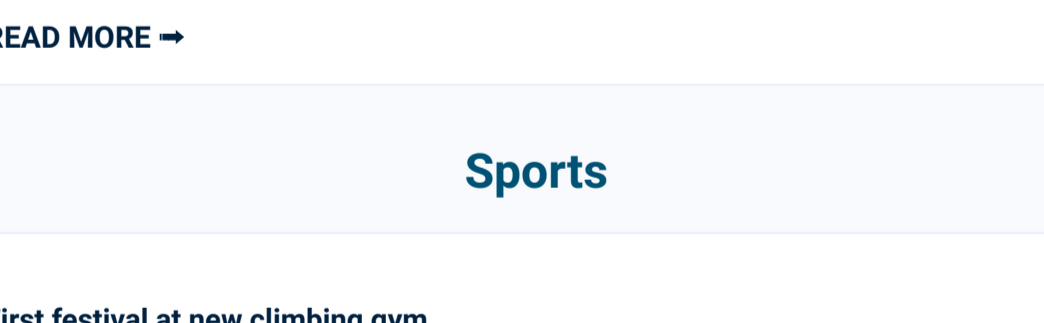
A new issue of the JINR Weekly Newspaper #46 has been published. Please note that you can read an English version on the JINR Newspaper's website.

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Sports

First festival at new climbing gym

A major sports event was held in Dubna that gathered 38 athletes from five Russian cities. Congratulations to the sportsmen on their successful performances!



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Upcoming Events

Conferences

- **3 – 5 December**, Conference of young FLPN scientists and specialists, [FLNP JINR, Dubna](#)
- **3 – 6 December**, Baikal Collaboration Meeting, [DLNP JINR, Dubna](#)
- **9 – 13 December**, 2nd International African Symposium on Exotic Nuclei (IASEN-2024), [Gordon's Bay, South Africa](#)

Seminars

- **5 December**, 3:00 PM, BLTP, "R-expansion for renormalisation group invariants in QCD, where does it come from (BLM)? What is it and what is it for? CBK correlation diagrams, optimisation of perturbation theory" by [Sergey Mikhailov](#)
- **6 December**, 11:00 AM, BLTP, "Bjorken sum rule with analytic coupling" by [Anatoly Kotikov](#)
- **6 December**, 11:30 AM, VBLHEP, "Relativistic nuclear physics at VBLHEP accelerator complex" by [Anton Baklin](#)
- **6 December**, 3:30 PM, FLNR, "Study of full cross sections of ^{10,11,12}Be + ²⁸Si reactions" by [Mikhail Naumenko](#), "Experimental research on nucleon transfer reactions on ³He and ⁴Li ion beams: ³He + ⁹Be, ⁶Li + ⁹Be, ³He + ⁴⁵Sc" by [Talgat Issatayev](#)
- **9 December**, 10:30 AM, MLIT, Seminar of applicants of Grant Competition for Young JINR Scientists and Specialists in 2025 and Mescheryakov and Govorun scholarships
- **10 December**, 10:30 AM, MLIT, Seminar of applicants of Grant Competition for Young JINR Scientists and Specialists in 2025 and Mescheryakov and Govorun scholarships
- **11 December**, 10:30 AM, MLIT, Seminar of applicants of Grant Competition for Young JINR Scientists and Specialists in 2025 and Mescheryakov and Govorun scholarships
- **9 December**, 11:00 AM, BLTP, Journal Club, "Altermagnetic multiferroics and altermagnetoelectric effect" by [Kavshal Kumar Kesharpu](#)
- **10 December**, 3:00 PM, MLIT, "Modelling of nonlinear dynamics of electromagnetic radiation generated by charged particle beams in non-one-dimensional spatially periodic structures" by [Svetlana Sytova](#)
- **11 December**, 11:00 AM, DLNP, "Study of short-range nucleon-nucleon and nucleon-nucleus interactions" by [Vladimir Komarov](#)
- **11 December**, 3:00 PM, FLNP, "Orbital degrees of freedom in condensed matter physics" by [Sergey Streltsov](#)
- **11 December**, 4:00 PM, BLTP, "On the origin of mixed inhomogeneous phase in vortical gluon plasma" by [Artem Roenko](#)

Culture

- **28 November – 22 December**, Daily from 1:00 to 7:00 PM (except Monday), JINR Mir Cultural Centre, Exhibition dedicated to DLNP 75th anniversary
- **5 December**, 5:00 PM, JINR Scientists' Club, "The centenary of quantum mechanics: a view from China" lecture
- **5 December**, 7:00 PM, JINR Scientists' Club, JINR Film Union
- **5 December**, 7:00 PM, JINR Universal Public Library, Summer Reading List book club
- **6 December**, 6:00 PM, JINR Universal Public Library, English speaking club
- **6 December**, 6:30 PM, JINR Universal Public Library, 15x4 mini lectures
- **6 December**, 7:00 PM, JINR Mir Cultural Centre, Comedy performance
- **7 December**, 4:00 PM, JINR Museum of History of Science and Technology, Round Table "At origins of scientific Dubna"
- **7 December**, 7:00 PM, JINR Universal Public Library, Ethnic concert at Biokhinka
- **7 December**, 7:00 PM, JINR Mir Cultural Centre, Symphonic concert
- **8 December**, 4:00 PM, JINR Mir Cultural Centre, Seasons choreographic suite
- **11 December**, 7:00 PM, JINR Mir Cultural Centre, Piano concert

For Kids

- **7 December**, 5:00 PM, JINR Universal Public Library, "Let's READers"

ALL JINR EVENTS →