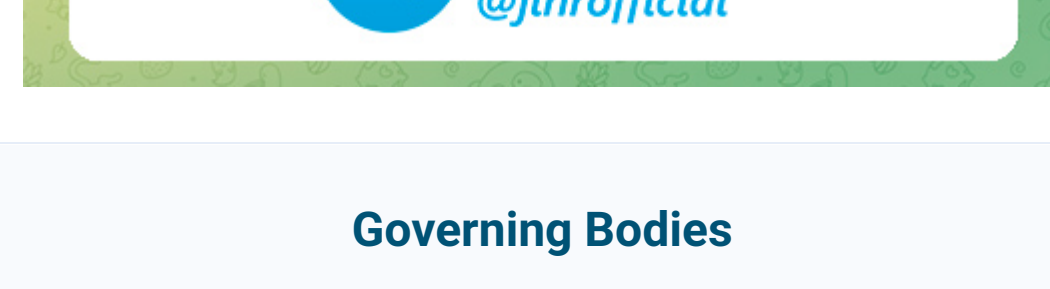


JINR Newsletter #35, 18 September 2024

Dear colleagues and friends,

JINR not only welcomes new countries on its cooperation orbit, but also actively develops and deepens partnerships with the Member States. This week, new frontiers of joint work were discussed during two high-profile visits to the Institute: by Ambassador Extraordinary and Plenipotentiary of Belarus and a delegation from the country's National Academy of Sciences.

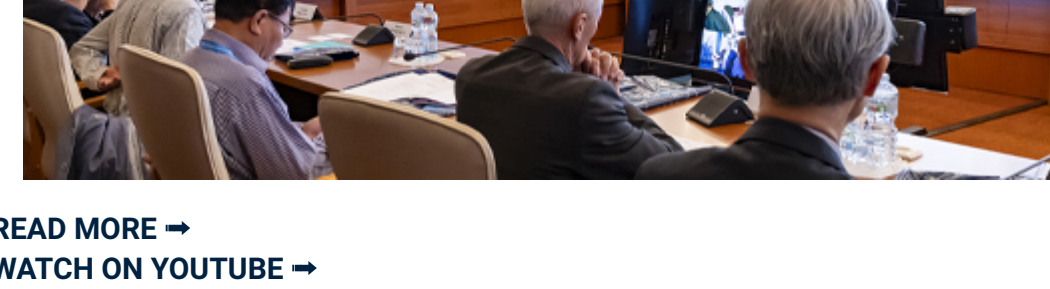
The Institute is summing up the work of the 136th session of the Scientific Council, one of the highlights of which was the announcement of the laureates of the 2024 OGANESSON Prize. The Joint Institute is also launching a new programme for scientific youth, the JINR Fellowship Programme. You can read about this and much more in the latest issue of the JINR Newsletter.



Governing Bodies

Results of 136th session of JINR Scientific Council: reaching new frontiers

The event took place in Dubna on 12–13 September. JINR Director Grigory Trubnikov reported on the key events of 2024 in the Institute's life. The winners of the OGANESSON Prize were announced and the laureates of the Bogolubov, Dzhelpev, and Fierov Prizes were awarded. The winners of the 2023 JINR Prizes received diplomas.

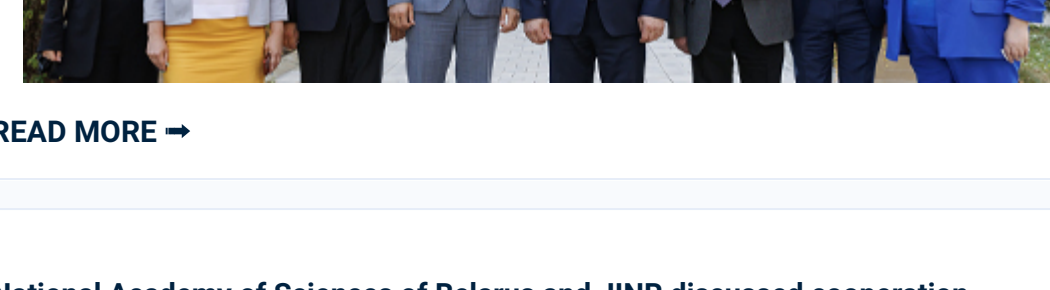


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Cooperation

Ambassador Extraordinary and Plenipotentiary of Republic of Belarus to Russia visits JINR

On 16 September, Ambassador Extraordinary and Plenipotentiary of the Republic of Belarus to the Russian Federation Alexander Rogozhnik visited the Joint Institute for Nuclear Research. At the meeting with the leadership of the Institute, the parties discussed prospects for the development of comprehensive cooperation between JINR and Belarus.



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National Academy of Sciences of Belarus and JINR discussed cooperation development prospects

The Academy's delegation participated in a round table with the JINR leadership on 17 September. Proposals were put forward for the organizations subordinate to the National Academy of Sciences of Belarus to take part in the Institute's megascience collaborations, applied research, and the JINR educational programme.



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Awards

Winners of 2024 OGANESSON Prize announced

On 13 September, at the 136th session of the JINR Scientific Council, the winners of the 2024 OGANESSON Prize were announced. The Prize was created at the suggestion and expense of Academician of the Russian Academy of Sciences Yuri T. Oganessian and established at JINR in 2023.



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Conferences

FLNP JINR at webinar of UN Environment Programme

On 7 September, Advisor to the FLNP JINR Directorate Marina Frontasyeva spoke at the webinar dedicated to the International Day of Clean Air for Blue Skies. She delivered a report about the UN Clean Air Programme for Europe and its promotion to Asia and the Pacific Coast countries.



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International seminar on problems of charged particle accelerators takes place in Alushta

On 15–20 September, the Dubna Resort House (Alushta, Russia) is hosting the 18th seminar entitled "Problems of colliders and charged particle accelerators" in memory of the outstanding JINR scientist, Professor Vladimir Sarantsev. JINR, the Budker Institute of Nuclear Physics, and the RAS Scientific Council on Problems of Charged Particle Accelerators organized the event.

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Research

On Geant4 model of electron beam mode in clinical linear accelerator

The model was developed by scientists from VBLHEP at JINR, Tomsk Polytechnic University, and Russian and German medical centres. Read more about the research in the [article](#) published by the *Journal of Instrumentation*.

[READ MORE →](#)

Analysis of shape of multiplicity distributions of prompt neutrons emitted in spontaneous fission

The study [listed](#) by the *Journal of Radioanalytical and Nuclear Chemistry* was carried out by FLNR JINR researchers in collaboration with colleagues from France, Kazakhstan, and Russia.

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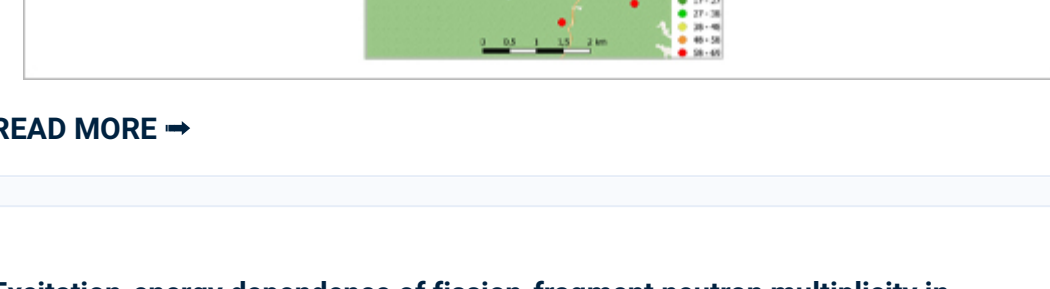
Thin-film heating element with silver nanowires network embedded inside

Together with colleagues from Russian scientific centres, FLNR JINR researchers devised an innovative method for fabricating a thin-film polymer heating element. Learn more about the study in the [article published](#) in *Nanotechnology*.

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FLNP JINR researchers conducted air biomonitoring in national park of Kazakhstan

The study was carried out by FLNP JINR scientists in collaboration with researchers from scientific and educational centres of Georgia, Kazakhstan, Moldova, and Romania. *Environmental Monitoring and Assessment* [released](#) an article about this research.



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Excitation-energy dependence of fission-fragment neutron multiplicity in improved scission-point model

The research was conducted by scientists from BLTP at JINR, Babes-Bolyai University (Romania), and Tomsk Polytechnic University (Russia). To find out more about the work, read [the article](#) in *Physical Review C*.

[READ MORE →](#)

Research into electrotherological and magnetorheological properties of liquid composites

Scientists from BLTP at JINR and research centres in Romania and the Czech Republic carried out an in-depth study of the properties of a polypropylene nanotubes/magnetite nanoparticles material embedded in a silicone oil matrix. [Learn more](#) in *Smart Materials and Structures*.

[READ MORE →](#)

Comparative biomonitoring of airborne PTEs using mosses and lichen

The study was made by FLNP JINR researchers together with colleagues from Romanian and Serbian scientific centres. More details about this research are [available](#) in *Environmental Science and Pollution Research*.

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Education

Fourth science school for Egyptian schoolchildren

On 10–14 September, JINR hosted the 4th Science School for Students of the Children's University of the Egyptian Academy of Scientific Research and Technology. Throughout the week, the schoolchildren got introduced to the laboratories of the Institute and participated in hands-on physics workshops at the JINR University Centre.



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Announcements

JINR Fellowship Programme: call for applications

The Joint Institute invites scientists and engineers to participate in the international JINR Fellowship Programme. It provides an opportunity for young and experienced researchers to join JINR scientific projects and work in international teams. Applications can be submitted [via the link](#) until 5 October 2024.



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Registration for conference on neutron research of condensed matter starts

The event will take place on 11–15 November at Dubna State University in a hybrid format. The conference topics include development and modelling of neutron scattering stations, neutron radiation detectors, detector electronics, neutron experiment techniques, life sciences, and much more. Applications are accepted [via the link](#) until 15 October.

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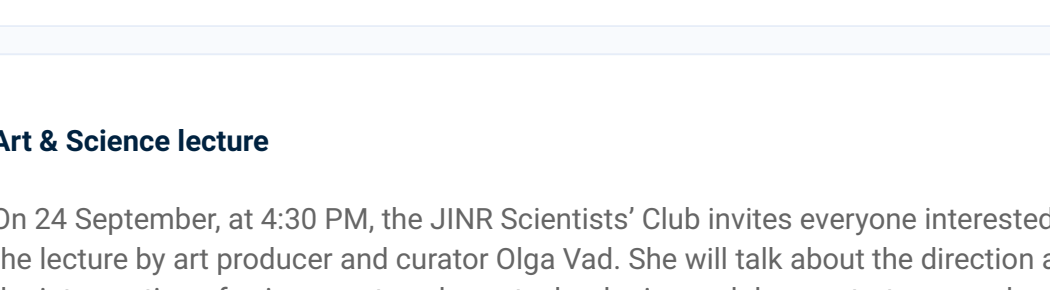
AYSS-2024: registration ends soon

The conference will take place on 28 October–1 November at MLIT at JINR. Students, young scientists, and specialists under 36 can participate. [Registration and abstract submission form](#) will be available until 22 September, 11:59 PM. If you have already registered, please remember to attach an abstract of your report.

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Art & Science lecture

On 24 September, at 4:30 PM, the JINR Scientists' Club invites everyone interested to the lecture by art producer and curator Olga Vad. She will talk about the direction at the intersection of science, art, and new technologies and demonstrate examples of projects.



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4th Young Scientists Congress

The event will take place on 20–22 November in Sirius, Russia. If you work at JINR and wish to participate, please register [via the link](#) and send an email to ayss@jinr.ru (subject: Young Scientists Congress) with your full name and the department you work in.

[READ MORE →](#)

Media

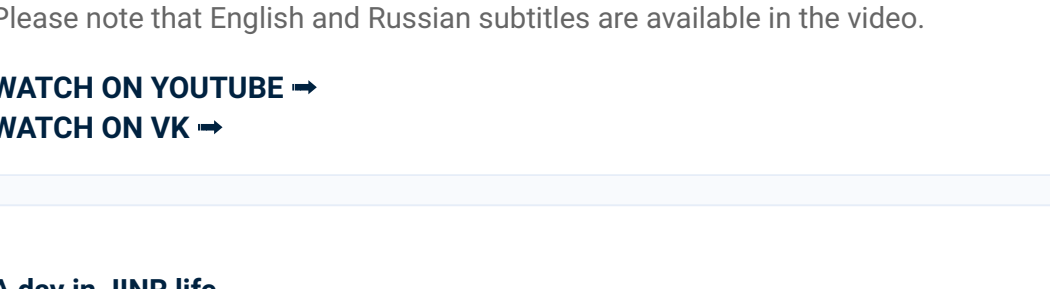
JINR Scientific Council: video

On 12–13 September, the 136th session of the JINR Scientific Council took place in Dubna. Please enjoy video featuring interviews with JINR Director Grigory Trubnikov, SC Chairman Sergey Klim, and IFT UAM-CSIC (Madrid) Professor Alvaro de Rijula. Please note that English and Russian subtitles are available in the video.

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A day in JINR life

On 12 September, the JINR Telegram channel published a post featuring an archive photograph with members of the Professor Wang Ganchang's group near the Laboratory of High Energy taken exactly 64 years ago, on 12 September 1960. Please enjoy the photo and its description.



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Seminar recording

We offer you to watch a recording of the seminar entitled "Status and recent results of the FASER Experiment at the LHC" by Sergey Dmitrievsky.

[WATCH ON YOUTUBE →](#)
[WATCH ON VK →](#)

Video about past week JINR and Dubna events

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

[WATCH →](#)

JINR Weekly Newspaper issued

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

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Upcoming Events

Workshops & Seminars

- **15–19 September**, [China-JINR Workshop on Software and Computing for Future HEP Experiments](#), Listvanka Village, Russia
- **15–20 September**, [15th International Seminar on Problems of Charged Particle Accelerators in memory of Professor Vladimir Sarantsev](#), Alushta, Russia

Seminars

- **19 September, 12:30 PM**, BLTP, "Split Casimir operator, Vogel parameters, and colour factors in gauge theories" by Alexander Provorov
- **20 September, 12:30 PM**, BLTP, "Defects in supersymmetric fields theories and string theory" by Dmitry Galakhov
- **23 September, 12:30 PM**, BLTP, "James Webb Telescope strengthens the Cosmology's biggest controversy again" by Chitta Ranjan Das
- **25 September, 11:00 AM**, BLTP, "Scattering amplitudes and shape factors in supersymmetric gauge theories in perturbation theory and beyond" by Leonid Bork

Culture

- **3–29 September**, Daily from 1:00 to 7:00 PM (except Monday), [JINR Mir Cultural Centre](#), Antigravity exhibition of watercolour landscapes
- **18 September, 7:00 PM**, [JINR Mir Cultural Centre](#), "Classics are fashionable" fashion show
- **19 September, 7:00 PM**, [JINR Universal Public Library](#), Hairpin book club
- **20 September, 6:00 PM**, [JINR Universal Public Library](#), JINR Cinema Club
- **20 September, 6:00 PM**, [JINR Universal Public Library](#), English speaking club
- **21 September, 6:00 PM**, [JINR Mir Cultural Centre](#), Three Days of Rain performance
- **21 September, 2:30 PM**, [JINR Universal Public Library](#), "Moscow Region birds, close and unfamiliar" lecture
- **22 September**, Trip to the Pushkin State Museum of Fine Arts
- **22 September, 5:00 PM**, [JINR Mir Cultural Centre](#), Musical play for children
- **24 September, 4:30 PM**, [JINR Scientists' Club](#), Art & science: background and trends, Lecture

For Kids

- **21 September, 4:00 PM**, [JINR Museum of the History of Science and Technology](#), Future Scientists' Club class: rocks of Moscow region
- **21 September, 5:00 PM**, [JINR Universal Public Library](#), "Let's READers"
- **21 September, 6:00 PM**, [JINR Universal Public Library](#), Meeting of book club for teenagers

Sports

- **21 September, 12:00 PM**, [JINR Nauka Stadium](#), Archery tournament
- **22 September, 11:00 PM**, [JINR Archimedes Pool](#), 55th annual track and field run in memory of Academician Veksler

[ALL JINR EVENTS →](#)