



JINR Newsletter #49, 14 December 2023

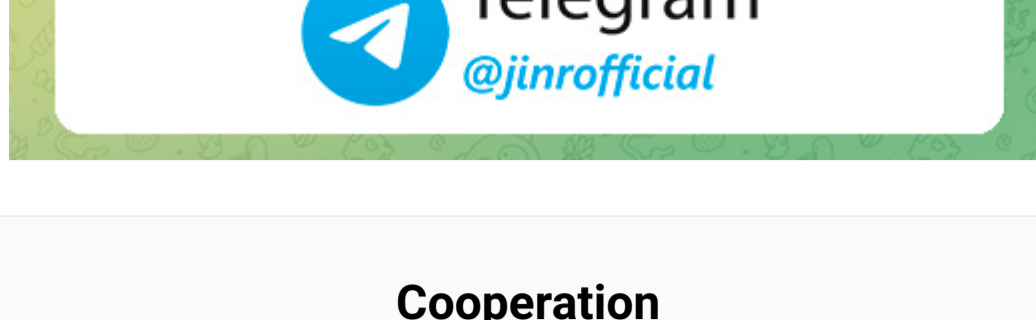
Dear colleagues and friends,

Last week, the family of JINR Infocentres welcomed a new member: the first JINR Information Centre at the international organization, the Arab Atomic Energy Agency, was opened in Tunisia. Recently, JINR congratulated the Academy of Sciences of Uzbekistan, a Member State of the Institute, on the 80th anniversary of its foundation.

Bright news came from international collaborations in which JINR participates. At the NICA Accelerator Complex, the solenoid of the MPD Experiment was moved to its beam position for the first time. And JINR's precision inclinometers have reached Kamchatka in Russia.

This and much more – media, announcements, sports news – in this issue of the JINR Newsletter.

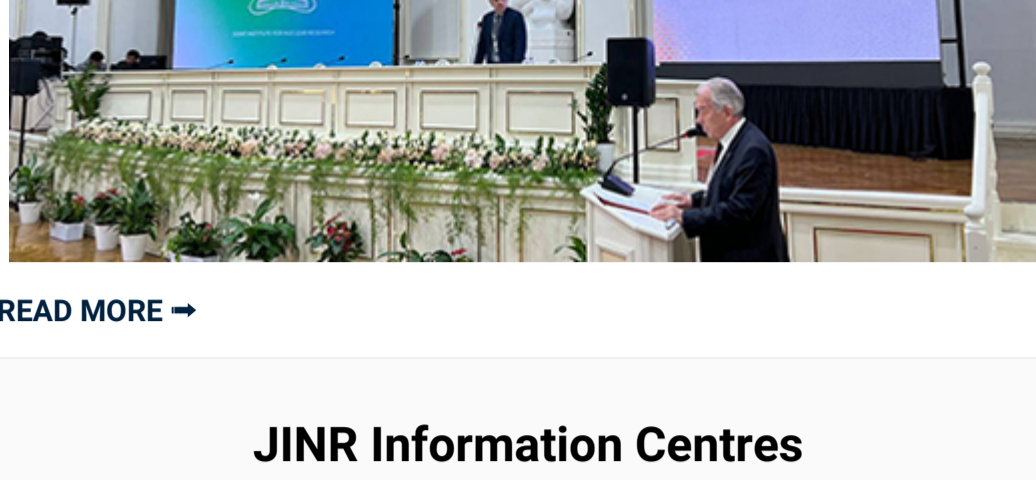
JINR Press Office



Cooperation

JINR congratulates Uzbekistan Academy of Sciences on 80th anniversary

On 12–13 December, JINR took part in the events commemorating the 80th anniversary of the Academy of Sciences of Uzbekistan. JINR representatives also participated in the international conference *Science as Foundation of New Uzbekistan*, visited an exhibition of innovative developments, and an exhibition devoted to the history of the Academy.




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JINR Information Centres

First JINR Information Centre in international organization opens in Tunisia

On 4 December, the JINR Information Centre and Virtual Laboratory opened at the headquarters of the Arab Atomic Energy Agency (AAEA) in Tunisia. JINR Director Grigory Trubnikov and AAEA Director General Salem Hamdi signed a Memorandum of Understanding in connection with the expiry of a similar document signed in 2016.



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Research

Second precision laser inclinometer installed on Kamchatka

The new unit, commissioned in December, will work together with the existing inclinometer installed last year in cooperation between DLNP JINR, KamsSU, and the Kamchatka branch of the GSRAS.

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Collaborations News

Relocation of MPD solenoid at NICA

On 5–6 December, the technological relocation of the superconducting solenoid, an 800-tonne magnet of over 5 metres in diameter, took place in the pavilion of the Multi-Purpose Detector (MPD) of the NICA Complex. The detector was moved to its working position, the beam position.



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Installation of HF stations in NICA Collider tunnel

Employees of VBLHEP at JINR and the Budker Institute of Nuclear Physics started the installation of stations of high-frequency accelerating systems, HF-1 and HF-2, in the straight section of the ion trajectory of the NICA Collider.

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Baikal-GVD Collaboration meeting

Last week, a meeting of the Baikal-GVD Collaboration took place at DLNP at JINR. About 50 people participated in the event in a hybrid format. The members of the collaboration discussed the preparation for the upcoming winter expedition, the status of analyses of the collected data, and preliminary results.

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First neutrino interactions in modernised detector of T2K experiment

Important events have recently taken place in the T2K experiment. The first experimental data collection began at the J-PARC facility. Thanks to the coordinated work of a large team of physicists and engineers, with the active participation of DLNP JINR employees, scientists managed to activate the new detectors.

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News of MEG II Experiment

A regular six-month run of the experimental data set in the MEG II Experiment to search for the $\mu^+ \rightarrow e^+ \gamma$ decay has been completed at the Paul Scherrer Institute (Switzerland). We would like to offer you to read the news of the experiment status in the article on the JINR website.

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Publications


Results of thermal processes in materials under action of femtosecond laser pulses

The JINR Publishing Department has issued a preprint "Numerical results of thermal processes occurring in materials under the action of femtosecond laser pulses" P11-2023-52. The authors are Ilkizar Amirkhanov, Ibrokhim Sarkhadov, Zafar Tukhliev.

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JINR Community

JINR Grants for Dubna teachers



The JINR Directorate invites Dubna teachers to take part in the JINR Grant Competition. The deadline for submitting applications in the competition: 24 February 2024.

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Announcements

S&T Library exhibition dedicated to VBLHEP anniversary

From 11 to 29 December, the branch of the S&T Library in the Laboratory of High Energy Physics at JINR will host a literature exhibition, dedicated to the 70th anniversary of the Laboratory and the 30th anniversary of the Nuclotron, "Laboratory of High Energy Physics: from Synchrotron to NICA".

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Media

Video about JINR-Uzbekistan cooperation

The Academy of Sciences of the Republic of Uzbekistan has celebrated its 80th anniversary. We would like to offer you a video about the history of long-term cooperation between JINR and Uzbekistan, the JINR Member State.

[WATCH →](#)

First relocation of MPD solenoid to beam position

We would like to offer you to watch a video about the relocation of the 800-tonne superconducting solenoid of the MPD Detector.

[WATCH →](#)

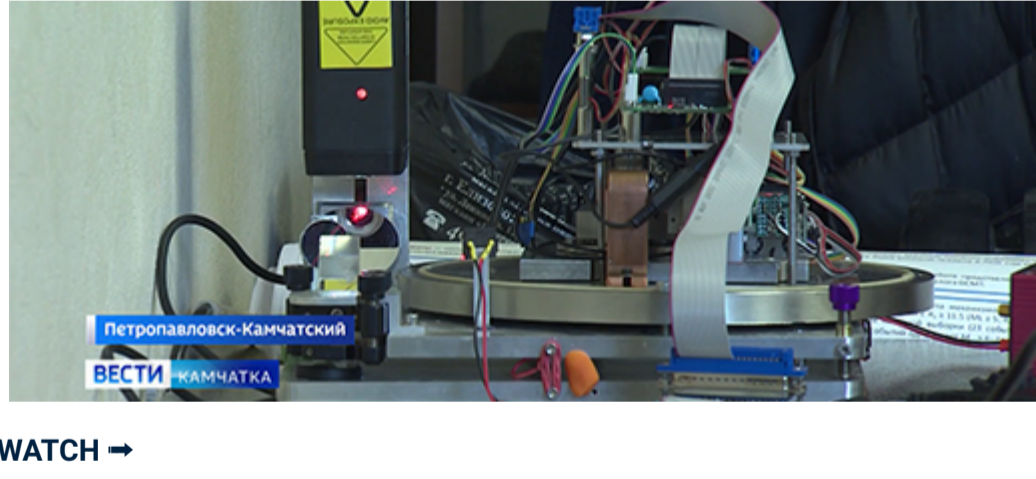
JINR scientist on NTV channel

VBLHEP JINR Deputy Head of the Department for Scientific Work Anatoly Sidirin took part in an interesting discussion titled "Will scientists create a perpetual battery in 10 years?" as part of the *We and science. Science and we* programme of the NTV channel.

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JINR on Russia-1 TV channel

Mikhail Lyabin, Head of the DLNP JINR sector, gave an interview to the Russia-1 TV channel, in which he spoke about the purpose of installing precision laser inclinometers on Kamchatka, as well as variants of their application.



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Seminar records

We invite you to watch seminar records "Polarisation experiments at MAMI (Mainz) and ELSA (Bonn)" by Victor Kashevarov and "Aerogel Cherenkov counters: modern status" by Anatoly Kulikov.

[WATCH seminar by Victor Kashevarov →](#)

[WATCH seminar by Anatoly Kulikov →](#)

Video about past week JINR events

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

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Sports

JINR employees – winners of shooting competition

On 9 December, 9 organizations of Dubna took part in the air rifle shooting competition at the JINR Nauka Stadium. The JINR team took the first place with 116 points. Congratulations to the winners!

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Upcoming Events

- Seminars**
- **15 December, 10:00 AM, VBLHEP, Lecture series on training of accelerator complex operators, Ionization profilometer**
 - **15 December, 11:30 AM, VBLHEP, "Impact of vector meson polarization on its interaction with matter" by Sergey Gevorkyan**
 - **15 December, 2:30 PM, BLTP, "Twisted photons in high energy physics" by Pyotr Kazinski**
 - **18 December, 11:00 AM, BLTP, Journal Club, "Unlocking neutron star rotation anomalies: Insights from quantum simulation" by Chitta Ranjan Das**
 - **18 December, 10:00 AM, VBLHEP, Lecture series on training of accelerator complex operators, Quench detection system**
 - **19 December, 11:00 AM, MLIT, Joint Laboratory Seminar**
 - **19 December, 4:00 PM, BLTP, "Superfluidity in multicomponent fermions via the functional renormalization group" by Georgii Kalagov**
 - **20 December, 11:00 AM, BLTP, "Fishnet models in arbitrary dimensions" by Ravil Lakhibbaev**
 - **20 December, 11:00 AM, MLIT, Joint Laboratory Seminar**
 - **21 December, 11:00 AM, DLNP, DISSERTATION COUNCIL, "Study of production of J/psi pairs in COMPASS experiment" by Andrey Gridin**
 - **21 December, 3:00 PM, BLTP, Dissertation Council, "Phase and magnetic dynamics in Josephson nanostructures with ferromagnetic layers" by Andrey Mazanik**
 - **21 December, 3:30 PM, BLTP, "Thermodynamics and kinetics in the expanding Universe, putting it simply. Lecture 2" by Anton Baushev**
- Culture**
- **16 November – 15 December, daily from 1:00 to 8:00 PM (except Monday), JINR Universal Public Library, Photo exhibition of floral still lifes**
 - **4 December – 2 February 2024, daily from 2:00 to 6:00 PM (except Monday), JINR Scientists' Club, Olga Trifonova, Art exhibition**
 - **15 December – 14 January 2024, daily from 1:00 to 7:00 PM (except Monday), JINR Cultural Centre "Mir", "New Year's tree ART. Open world of creativity" exhibition**
 - **14 December, 6:00 PM, JINR Universal Public Library, "I Loved You" solo performance**
 - **14 December, 7:00 PM, JINR Universal Public Library, Hairpin book club**
 - **15 December, 6:00 PM, JINR Universal Public Library, JINR Cinema Club**
 - **15 December, 6:00 PM, JINR Universal Public Library, Scrapbooking club's meeting**
 - **15 December, 6:00 PM, JINR Universal Public Library, English speaking club**
 - **15 December, 7:00 PM, JINR Universal Public Library, Jazz concert**
 - **21 December, 6:00 PM, JINR Universal Public Library, Italian speaking club**
 - **21 December, 7:00 PM, JINR Universal Public Library, Summer Reading List book club**
- For Kids**
- **16 December, 4:00 PM, JINR Universal Public Library, Children's research project "Archimedes Pear"**
 - **16 December, 5:00 PM, JINR Universal Public Library, Let's READers**
- [ALL JINR EVENTS →](#)