

JINR Newsletter #10, 13 March 2024

Dear colleagues and friends,

Last week, Baikal-GVD became the flagship project of the entire future neutrino research programme in Russia, apart from being one of the JINR leading projects. This was discussed at a meeting in Irkutsk. Sights of the beautiful Lake Baikal can also be found in several items of the Media section.

Participants of the JEMS Training Course – leaders of different ranks from scientific organizations of Belarus, Russia, and Uzbekistan – are getting acquainted with the Baikal-GVD Project and other key areas of JINR research this week. The latest issue of the JINR Newsletter also features a number of new scientific publications, future conferences, and facts from the JINR history.

JINR Press Office



Flagship projects

Baikal-GVD designated as critical element of Russian neutrino programme

On 5 March, a working meeting took place in Irkutsk to discuss the status of the Baikal-GVD Project, plans for developing its infrastructure, and opportunities for expanding the collaboration. The project of a Russian neutrino physics programme was reviewed at the event.



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Publications

On relevance of inelastic interaction in direct search for dark matter particles

We offer to your attention a study by DLNP JINR Chief Researcher Vadim Bednyakov published in the Nuclear Physics Journal. Explicit expressions and estimates of the expected count rate of events of direct detection of dark matter particles are presented in this paper.



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Variational formalism for Klein-Gordon oscillator

The Physical Review D journal has published a study by a MLIT JINR researcher Igor Barashenkov and a lecturer at the University of Cape Town Nora Alexeeva. The paper presents a new variational method employing amplitude and width as collective coordinates of the Klein-Gordon oscillator.

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Measurement of A_{yy} , A_{yy} , and A_{xx} deuteron analysing powers in dp-elastic scattering at Nuclotron

The study by a team of authors from JINR, Romania, Slovakia, and Japan has been published in the Nuclear Physics Journal. The paper presents the results of a A_y vector and A_{yy} and A_{xx} tensors analysing powers in elastic deuteron-proton scattering at large transverse momenta.

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Deuteron beam vector polarisation measurement using proton-proton quasielastic scattering

We offer to your attention a study by a team of authors from JINR, Romania, Slovakia, and Russia issued in the Nuclear Physics Journal. The paper studies the deuteron beam vector polarisation obtained at the Nuclotron Internal Target Station.

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Thin-walled drift tubes with DLC resistive cathode and external strip signal readout

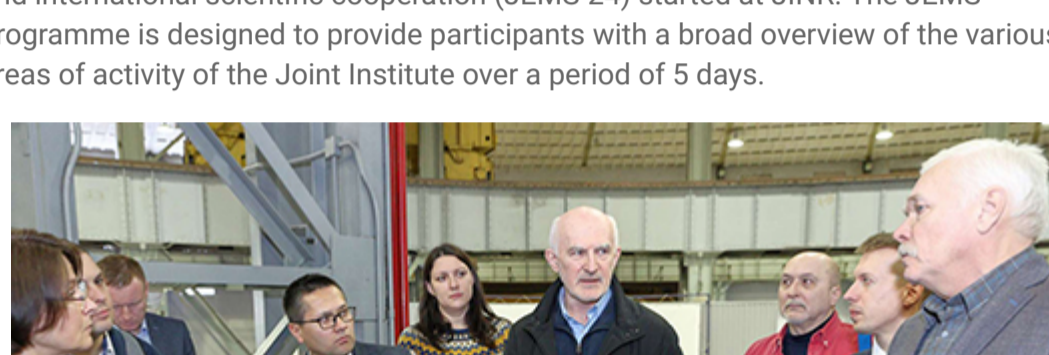
A group of authors from JINR, the Physical-Technical Institute of the National Academy of Sciences (NAS) of Belarus, and the Institute of Energy of NAS of Belarus developed, manufactured, and tested samples of thin-walled drift tubes. The article about the research was published in the Instrumentation and Technique of Experimentation Journal.

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Cooperation

24th JEMS Training Course begins at JINR

On 11 March, the international training programme for decision-makers in science and international scientific cooperation (JEMS-24) started at JINR. The JEMS programme is designed to provide participants with a broad overview of the various areas of activity of the Joint Institute over a period of 5 days.



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Announcements

Call for applications for "Radiation resistance" school

The school's programme includes lectures on methods for assessing and ensuring the radiation resistance of electronic devices. Applications can be submitted via the [website](#).

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Applications for participation in WONP-2024 invited

From 7 to 11 October, the 19th Workshop on Nuclear Physics will take place in Havana. You can submit your application until 1 September 2024. More info will be available on the event's [website](#).

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Registration for Quarks-2024 seminar opens

The event will take place from 20 to 24 May in Pereslavl-Zalessky, Russia. The Quarks-2024 seminar will cover physics beyond the Standard Model, cosmology, neutrino physics, quantum chromodynamics, etc. You can register via the [link](#) until 12 April 2024.



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"Evolution of universe. Neutron stars" lecture

The JINR University Centre invites everyone interested to an online lecture on the history of the universe by BLTP JINR Senior Researcher Alexandra Friesen.

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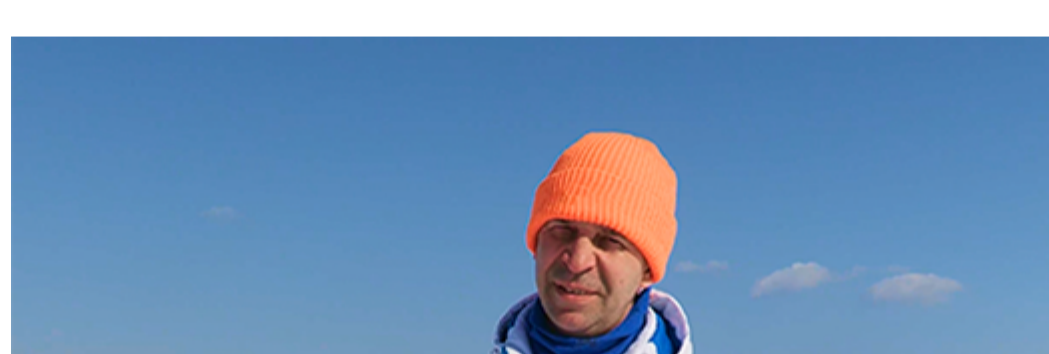
25th JINR Sports Games schedule

The JINR Sports Club has announced this week's tournaments of the 25th Sports Games dedicated to the 68th anniversary of the founding of JINR.

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Media

Greetings of JINR Director on International Women's Day



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Recalling Irina Pokrovskaya

We offer you to read a short note written by DLNP JINR Leading Researcher Georgy Shelkov commemorating Irina Pokrovskaya, an honorable employee of the Joint Institute for Nuclear Research.

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Diary of participant of Baikal-GVD Expedition

The expedition to deploy the Baikal-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 Baikal. Please enjoy the expedition news and photos.

[DAY 20 →](#)

[DAY 21 →](#)

[DAY 22 →](#)

[DAY 23 →](#)

[DAY 24 →](#)

[DAY 25 →](#)

[DAY 26 →](#)

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 #9 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

- **11 – 15 March** [24th JINR Training Course "JINR Expertise for Member States and Partner Countries" \(JEMS-24\)](#)
- **20 – 22 March** [AANL – JINR workshop](#)

Seminars

- **14 March, 9:00 AM** UIC JINR "Evolution of universe. Neutron stars" by Alexandra Friesen
- **14 March, 10:00 AM** DLNP SPD: Detector integration
- **14 March, 11:00 AM** MLIT "Special features of the toolkit for network traffic analysis" by Ivan Tatarinov
- **14 March, 11:00 AM** JINR Scientists' Club, MSC230 Cyclotron design review meeting
- **15 March, 10:00 AM** VBLHEP "Colliders" lecture series. Review by Valery Lebedev
- **15 March, 11:30 AM** VBLHEP "Study of the spin-dependent parton structure of the proton and deuteron in the SPD Experiment" by Alexey Guskov
- **15 March, 2:00 PM** JINR Scientists' Club. Seminar dedicated to 40th anniversary of IBR-2 JINR commissioning
- **18 March, 11:00 AM** BLTP Journal Club "Solving the quantum many-body problem with artificial neural networks" by Pavel Maksimov
- **18 March, 3:00 PM** ELP "Development of spin-echo small-angle neutron scattering method with linearly increasing magnetic fields for IBR-2 Pulsed Reactor" by Valentin Sadilov
- **19 March, 11:00 AM** VBLHEP "Application of the Hopfield network and quantum algorithms for SPD event reconstruction (project status)" by Martin Bures, Gennady Osooskov, and Ivan Kadochnikov
- **20 March, 11:30 AM** VBLHEP "Development of hardware solutions and software to improve RF capture by the Booster and Nuclotron systems" by Anton Volodin
- **20 March, 5:00 PM** BLTP Dissertation Council "Radiative effects of the first and second orders as part of the Standard Model for modern experimental programmes" by Yury Bystritsky

Culture

- **12 February – 15 March**, weekdays from 2:00 to 7:00 PM. JINR Scientists' Club. Art exhibition of Vlad Kravchuk
- **20 February – 17 March**, daily from 1:00 to 7:00 PM (except Monday). JINR Cultural Centre "Mir". Colours of Time exhibition
- **14 March, 9:00 AM** JINR University Centre. "Evolution of universe. Neutron stars" lecture
- **14 March, 7:00 PM** JINR Universal Public Library. Summer Reading List book club
- **14 March, 7:00 PM** JINR Universal Public Library. Italian speaking club
- **15 March, 11:00 AM** DLNP "Lifehacks of some use for scientists". Goal setting and planning. Lecture 3
- **15 March, 6:00 PM** JINR Universal Public Library. English speaking club
- **16 March, 4:00 PM** JINR Universal Public Library. Seminar on healthy lifestyle
- **17 March, 5:00 PM** JINR Cultural Centre "Mir". Concert of "Steinway invites" series

For Kids

- **15 March, 4:00 PM** JINR Universal Public Library. "Times and epochs" children's history project
- **16 March, 4:00 PM** JINR Universal Public Library. Children's research project "Archimedes' Pear"
- **16 March, 5:00 PM** JINR Universal Public Library. Let's READers
- **16 March, 6:00 PM** JINR Universal Public Library. Growing up from "Let's READers"

Sports

- **13 March, 7:00 PM** JINR Nauka Stadium. XXV JINR Sports Games. Darts
- **14 March, 8:00 PM** JINR Sports Club. XXV JINR Sports Games. Football
- **14 – 16 March, 7:00 PM, 12:00 PM** JINR Nauka Stadium. XXV JINR Sports Games. Rifle shooting
- **16 March, 10:00 AM** JINR Nauka Stadium. XXV JINR Sports Games. Volleyball
- **17 March, 10:30 AM** JINR Sports Club. XXV JINR Sports Games. Kettlebell lifting
- **17 March, 11:00 AM** JINR Nauka Stadium. XXV JINR Sports Games. Table tennis
- **17 March, 2:00 PM** JINR Nauka Stadium. XXV JINR Sports Games. Archery

[ALL JINR EVENTS →](#)