

## JINR Newsletter #21, 1 June 2023

Dear colleagues and friends,

This week demonstrated active development of cooperation of Mexico and China with JINR. The first meeting of the Joint Cooperation Committee JINR-Mexico was held. Famous Lanzhou University of China became a co-organizer of a large-scale JINR conference ISINN-29 for the first time.

In the fresh issue of the JINR Newsletter read also news on science, cooperation, and education. And find new wallpapers for your smartphones!

This Saturday, on 3 June, we are glad to invite everyone to the opening of the Science Through the Looking Glass photo exhibition on the D. I. Mendeleev embankment in Dubna.

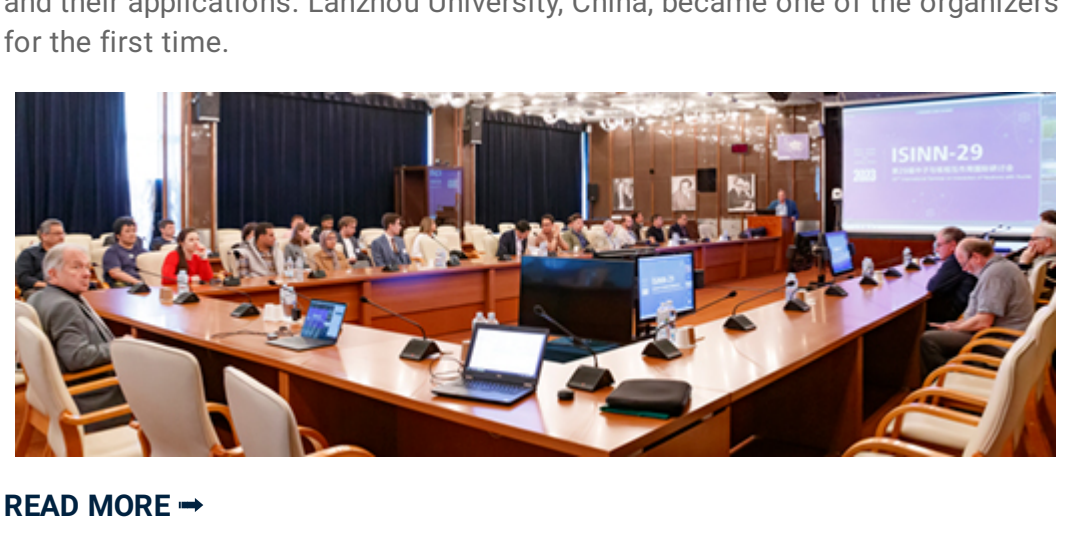
JINR Press Office



## Breaking News

### Kick-off meeting of JCC of JINR-Mexico: Successful Start

JINR Director Grigory Trubnikov and National Council of Humanities, Science and Technologies of Mexico Director María Elena Álvarez-Buylla Roces discussed the expected approaches concerning the work of the Committee, namely selection of projects for cooperation and information dissemination. The meeting became the first practical step on the road towards the implementation of the Joint Declaration of Intent.

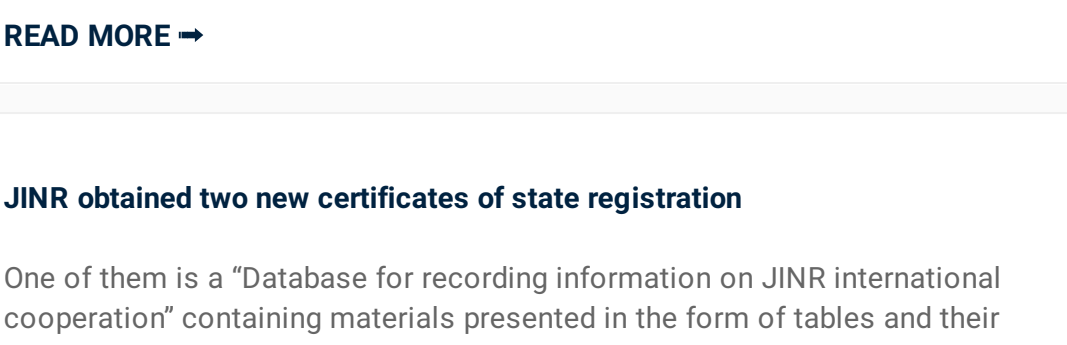


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## Conferences

### ISINN-29: Lanzhou University became new co-organizer of conference

On 29 May, the 29th International Seminar on Interaction of Neutrons with Nuclei (ISINN-29) started in a mixed format. More than 200 scientists from 16 countries are discussing the development of neutron science, nuclear physics, and their applications. Lanzhou University, China, became one of the organizers for the first time.

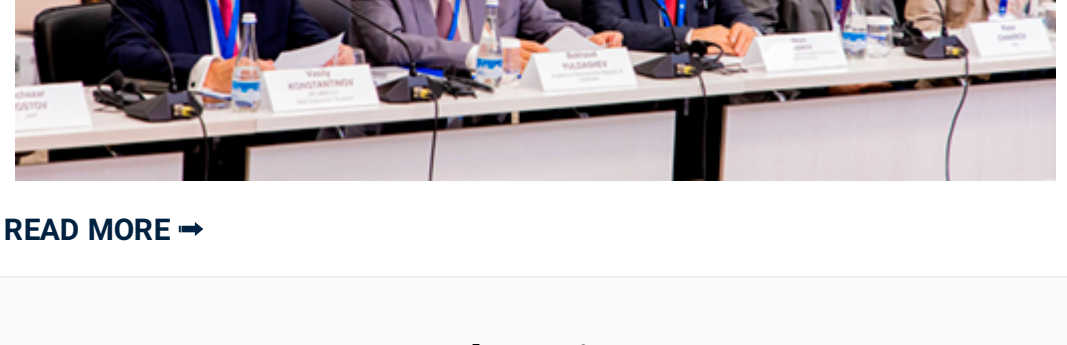


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## Research

### CMS and ATLAS Collaborations observed signs of rare decay of Higgs boson into a Z boson and a photon

Its study will help find differences between theory and experiment by indicating existence of new particles or another boson nature. Higgs boson was discovered in 2012. JINR scientists greatly contributed to its discovery and are considered its JINR co-authors.



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### JINR obtained two new certificates of state registration

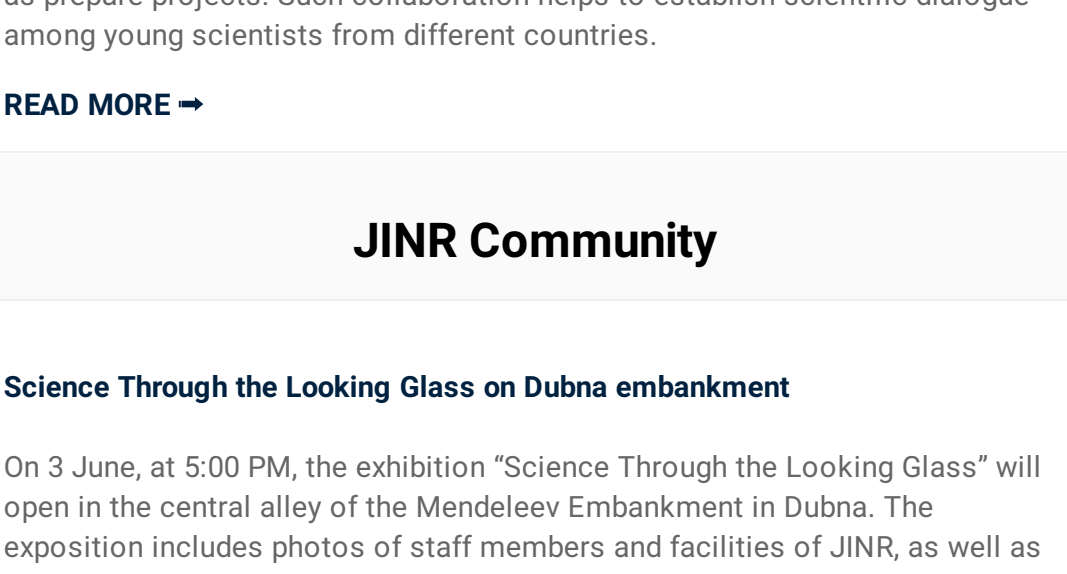
One of them is a "Database for recording information on JINR international cooperation" containing materials presented in the form of tables and their relationship. The second one is "Measurement program for Sys\_Monit currents in the superconducting structural magnets of the Booster and Nuclotron synchrotrons". The program helps transfer experiment data to a computer and visualise it.

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## Cooperation

### Relevant committee of MBIR project took part with JINR participation

On 26 May, a meeting of the Committee for Non-Energy Applications of Nuclear Technologies under the Advisory Board of the International Research Centre Based on the MBIR Reactor was held in Uzbekistan, a JINR Member States. Participants discussed the goals and objectives of the MBIR Project, the prospects for expanding collaboration around it, as well as the involvement of students in scientific work within MBIR.

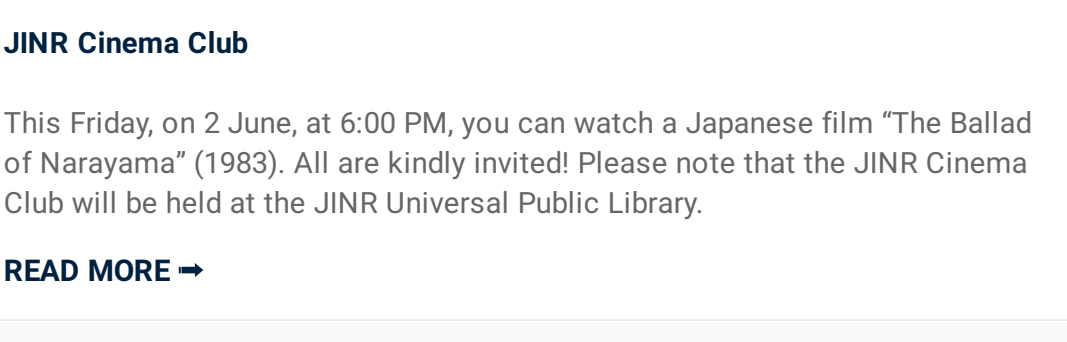


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## Education

### FEFU students' practice at JINR

From 15 to 26 May 2023, students of the Far Eastern Federal University (FEFU) took part in an engineering workshop at the JINR University Centre. Classes were held in the new UC building, which opened in March this year. This is the second engineering workshop for FEFU students organized at JINR.



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### Meeting on development of educational and informational environment: entering new stage

The first stage of the UC JINR project was completed. Within this stage, educational courses, informational systems, and multimedia exhibitions were created. Before the start of the second stage, a meeting was held with representatives of universities of the JINR Member States and Associate Members. New approaches to education using IT, proposals for virtual labs were discussed.

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### Internship for young scientists from CIS countries started at JINR

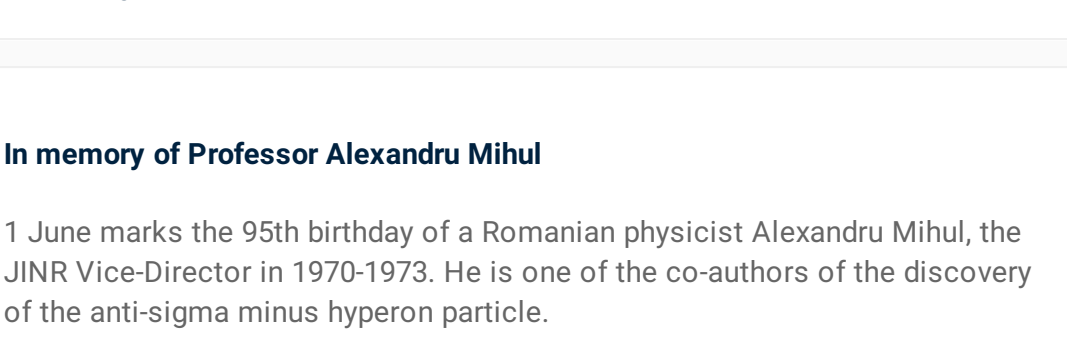
The 16th International Internship for Young Scientists and Specialists from CIS countries has started. During the internship in Dubna, participants from 8 countries will visit excursions to the JINR laboratories and enterprises, as well as prepare projects. Such collaboration helps to establish scientific dialogue among young scientists from different countries.

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## JINR Community

### Science Through the Looking Glass on Dubna embankment

On 3 June, at 5:00 PM, the exhibition "Science Through the Looking Glass" will open in the central alley of the Mendeleev Embankment in Dubna. The exposition includes photos of staff members and facilities of JINR, as well as pictures of laboratories and scientific buildings on the JINR closed sites.



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### S&T Library exhibition at VBLHEP "Particle accelerators as instruments of scientific discoveries"

On 5 - 23 June, the branch of the Scientific and Technical Library at the JINR Laboratory of High Energy Physics invites you to the exhibition of books "Particle accelerators as instruments of scientific discoveries". Educational and scientific literature on accelerators will be presented at the exhibition.

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### JINR Cinema Club

This Friday, on 2 June, at 6:00 PM, you can watch a Japanese film "The Ballad of Narayama" (1983). All are kindly invited! Please note that the JINR Cinema Club will be held at the JINR Universal Public Library.

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## Publications

### JINR Annual Report 2022

The JINR Annual Report on activities of the Institute in 2022 has been published. Last year, joint research was conducted with scientific centres in the Member States, international scientific conferences and schools were organized as well. More details about activities and results of work of JINR in 2022 are available in the Annual Report.

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### Book about outstanding scientist Yulian Budagov published

The JINR Publishing Department has released a book "Professor Budagov Yulian Aramovich" written in memory of this talented scientist, world-class experimental physicist, science organizer who made an enormous contribution to the creation of large-scale facilities. The book describes the biography of Yulian Budagov as well as the memoirs of his colleagues and friends.

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### Review of the journal "Particles and Nuclei, Letters", #3 2023

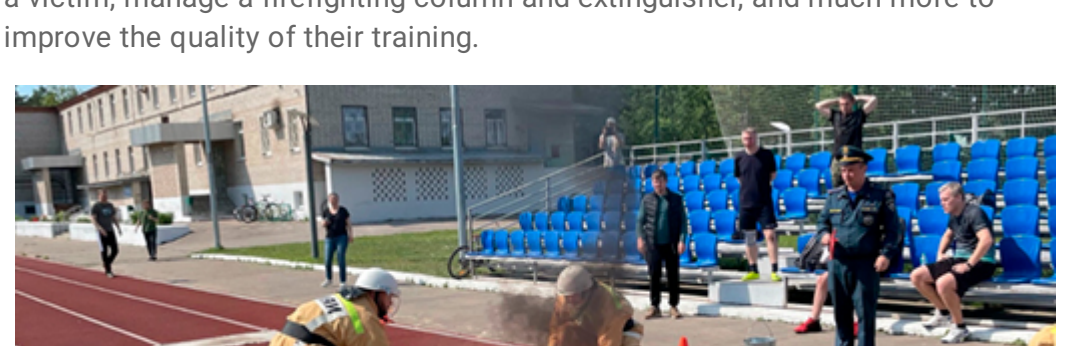
A new issue of the review journal Physics of Elementary Particles and Atomic Nuclei #3 has been published. In this eminent journal, review articles cover elementary particle physics, problems of vacuum in quantum field theory, condensed matter problems, symmetries in physics, etc.

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## Recalling founders

### Dedicated to Wang Ganchang's birthday

28 May marks the birthday of one of the JINR founders, a prominent Chinese scientist, a researcher in the fields of nuclear physics, cosmic rays, and elementary particle physics Wang Ganchang (1907–1998). He achieved worldwide recognition by making a major contribution to the development of Chinese science and technology, high technology.



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### In memory of Professor Alexandru Mihul

1 June marks the 95th birthday of a Romanian physicist Alexandru Mihul, the JINR Vice-Director in 1970-1973. He is one of the co-authors of the discovery of the anti-sigma minus hyperon particle.

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### About an outstanding scientist Namsarain Sodnom

The JINR Weekly Newspaper has published an article about Namsarain Sodnom, written by the staff of the Mongolian Plenipotentiary Representative of Mongolia at JINR. It describes his personal, public, and scientific biography, as well as his contribution to the development of the cooperation between JINR and the Mongolian State University.

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## Media

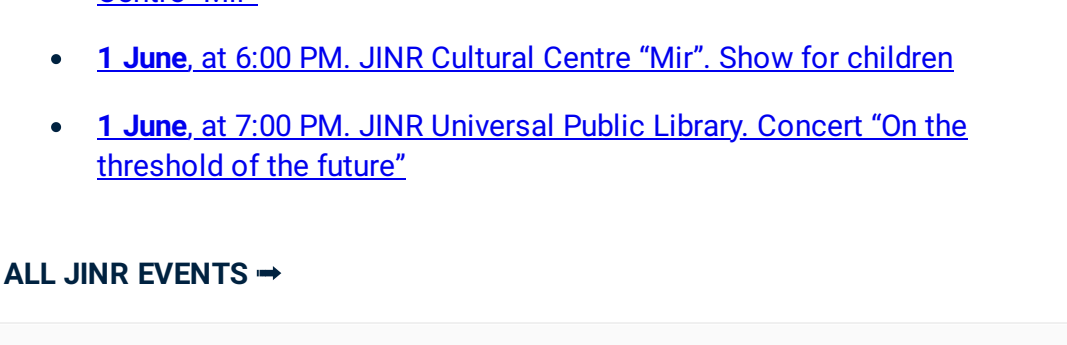
### Interview with JINR Scientific Leader Victor Matveev

The second part of an interview "Dubna. The beginning of the scientific path" with JINR Scientific Leader Victor Matveev has been issued. Victor Matveev spoke about the main results of his PhD thesis, debates in the BLTP cafe, his regret that he didn't thank one scientist, his work in the USA, and the peculiarities of different scientific schools!

WATCH →

### New June wallpapers for your smartphones

Today is the first summer day! The new wallpapers depict the Komsomolskaya embankment, the favourite place of Dubna citizens, both cyclists and pedestrians. The black and white sketch depicts one of the most recognisable buildings of the city - the JINR Hotel on 2, Moscovskaya street, where the Baryon restaurant is located.



DOWNLOAD →

### Coverage about graduates of the MSU Faculty of Physics working at JINR

On 25 May, VBLHEP FLNP and DLNP JINR, the Volnoe Delo Foundation filmed a coverage about graduates of the MSU Faculty of Physics working at the Institute. Dmitry Dryablov, Nikita Fedorov, and Liudmila Kolupaeva told how studying at Moscow University helped them in their future work, as well as about their participation in the NICA, TANGRA, and DUNE/NOVA projects.

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### Press tour for media of Kazakhstan

On 25 May, a press tour for the media of the Republic of Kazakhstan was held at JINR. Correspondents of "Khabar", "Kazakhstan" channels and international news agency "Kazinform" made a coverage about JINR scientists from Kazakhstan. The journalists visited FLNP, FLNP, DLNP, MLIT, VBLHEP and learned about the studies and projects of their heroes.



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### Non-personal computer

Read how the Govorun Supercomputer works in the Digital Ocean journal. Specialists of the Laboratory of Information Technologies JINR explained why Govorun needs the preb super, how it is designed, and what tasks it solves.

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### Video about firefighting sport competitions

Watch a video about how the firefighting sport competitions were held. According to the results of the competition, the first place was taken by the FLNP JINR team, VBLHEP won the second place, DLNP took the third place.

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### JINR Weekly Newspaper issued

A new issue of the JINR Weekly Newspaper #20 has been published. Please note that you can read an English version on the JINR Newspaper's website.

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## Sports

### JINR employees won 12 medals of the Russian Swimming Championship

The swimming competition in the "Masters" category was held in Obninsk, with the participation of female athletes from the "105 element" club.

ON THE FIRST day - a record and three medals →

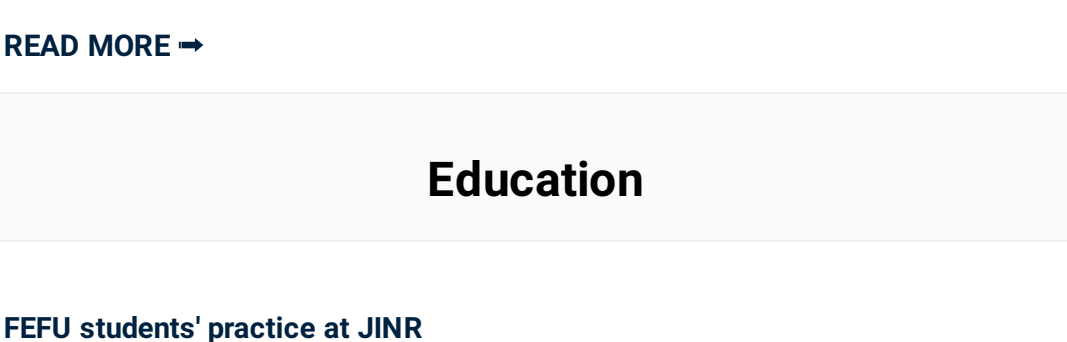
COACH from the JINR pool became a two-time champion of Russia →

VICTORY with freestyle →

JINR employees completed the competition, winning 4 medals →

### JINR hosted the firefighting sport competitions

Seven teams of fire department units of the Institute participated in the games, which are traditionally held in late May. They were supposed to practise saving a victim, manage a firefighting column and extinguisher, and much more to improve the quality of their training.



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### Open swimming classes

On 29 May, the Archimedes Swimming Pool of JINR hosted open classes in swimming by coach Tatiana Badyul. Children showed what they learned during the season.

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### Renovation in the JINR Sports Club

The next stage of renovation is taking place in the JINR Sports Club. The gaming hall is being overhauled, the hall will be redecorated, the ventilation system and heating systems will be replaced, and a modern lighting system will be installed.

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## Upcoming Events

### Conferences

- **29 May – 2 June, 29th International Seminar on Interaction of Neutrons with Nuclei (ISINN-29)**, JINR International Conference Centre, Dubna
- **30 May – 2 June, Baikal Collaboration Workshop**, JINR International Conference Centre, Dubna
- **4 – 11 June, XII Conference of Young Scientists and Specialists "Alusha-2023"**, Resort Hotel "Dubna", Alusha

### Practices

- **5 – 23 June, International Students Practice, Stage 2 (South Africa)**, JINR, Dubna

### Seminars

- **1 June, at 11:00 AM, FLNP, "Development of crystallographic textures at high pressures"** by Roman Vasin
- **2 June, at 11:00 AM, BLTP, "Resonances in Compton-like scattering processes in an external active medium"** by Alexei Yarkov
- **2 June, at 6:00 PM, DLNP, "Neutrino programme of DLNP JINR"** by Oleg Smirnov
- **5 June, at 11:00 AM, BLTP, "The electron is so round that it excludes the possibility of new physics"** by Chitta Ranjan Das
- **5 June, at 3:00 PM, FLNP, "Storage and source of cold and very cold neutrons"** by Yuri Nikitenko
- **7 June, at 3:00 PM, BLTP, Meeting of BLTP Dissertation Council: "Calculation of ionisation and dissociation of atoms and molecules by ultrashort laser pulses and particle impacts"** by Vladislav Serov

### Culture

- **1 June, at 7:00 PM, JINR Universal Public Library, Book club "Hairpin", discussing a book "Slym"** by Tatiana Tolstaya
- **2 June, at 6:00 PM, JINR Universal Public Library, "Talkative" English speaking club**
- **3 June, at 6:00 PM, JINR Universal Public Library, JINR Cinema Club**
- **3 June, at 2:00 PM, JINR Cultural Centre "Mir", Reporting concert of dance studio "Format"**
- **4 June, at 2:00 PM, Moscow, Trip by JINR Scientists' Club**
- **6 June, at 7:00 PM, JINR Cultural Centre "Mir", Performance "Dance with me"**
- **7 June, at 7:00 PM, JINR Cultural Centre "Mir", Concert of series "Steinway invites"**

### For Kids

- **1 June, at 5:00 PM, JINR Cultural Centre "Mir", Children's day at Cultural Centre "Mir"**
- **1 June, at 6:00 PM, JINR Cultural Centre "Mir", Show for children**

On **1 June, at 7:00 PM, JINR Universal Public Library, Concert "On the threshold of the future"**

ALL JINR EVENTS →