



JINR Newsletter #23, 15 June 2023

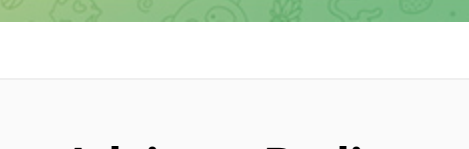
Dear colleagues and friends,

This week, a series of summer meetings of the Programme Advisory Committees, the first of which is the JINR PAC for Condensed Matter Physics, has started at JINR. International experts are evaluating the Institute's current and future research projects.

Read about the research proposed as one of the new projects, the study of the possibilities of the protein of tardigrades to increase the resistance of organisms to radiation and oxidative stress.

Read this and other JINR science news, as well as about events from the Institute's life in this issue of the JINR Newsletter.

JINR Press Office



Advisory Bodies

Summer meeting of PAC for Condensed Matter Physics

A regular, the 57th meeting of the Programme Advisory Committee for Condensed Matter Physics of JINR will take place on 15 – 16 June at the JINR International Conference Centre. The chairman Dénes Lajos Nagy will open the event and present information on the implementation of the recommendations of the previous PAC CMP meeting.



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Research

Protein of tardigrades increased resistance of flies to radiation, but made them slower

Studying capabilities of the unique protein of tardigrades to increase the resistance of organisms to radiation and oxidative stress, DLNP JINR scientists found out that a useful mutation has a side effect. Laboratory flies began to fly slower at long distances. Data of the experiment open up new opportunities in various fields. The results have been published in iScience journal.



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Tagged neutrons method: measuring greenhouse effect, searching for diamonds, and fundamental science

As part of the TANGRA project, JINR scientists are developing a mobile facility designed to determine the concentration of carbon in soil. It is to be used on special territories aimed at developing and testing methods for measuring greenhouse gas emissions and absorption. The facility will operate on the basis of the tagged neutron method.

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JINR received certificate of state registration of software

Vladimir Eliseev and Tatiana Tyupikova received the certificate for their program for analysing websites of organizations cooperating with the Joint Institute. The program is necessary for the JINR management staff, who check the organization's bank and contact details on the website.

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Announcements

JINR scientist will speak at NCPM scientific seminar

Today, at 6:00 PM, the National Centre for Physics and Mathematics will present a programme of advanced studies in the field of nuclear photonics at the super-luminous Compton radiation source in an online format. As part of the seminar, JINR Chief Researcher Leonid Grigorenko will make a presentation.

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Bicycle rental at Nauka stadium

Please note that you can rent a bike at the Nauka stadium.

Open hours: 11:00 AM - 8:00 PM

Closed: Tuesday

For any inquiries please call: +7 (985) 298-99-87

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Education

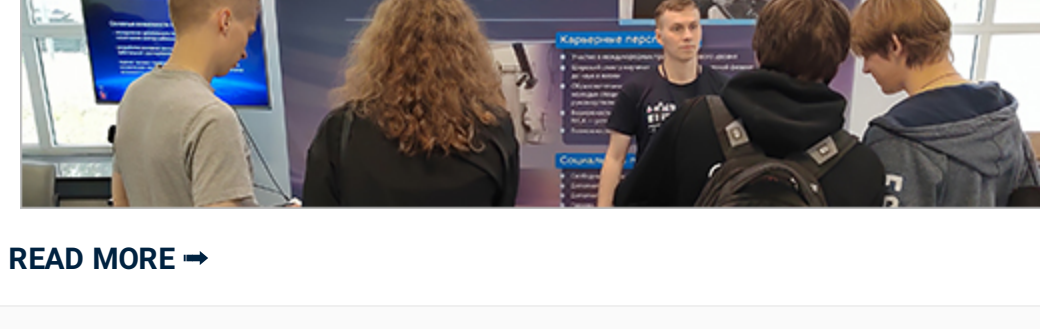
International IT School taking place in Vladikavkaz with JINR participation

The V International Summer School for Young Scientists "Modern information technologies for solving scientific and applied problems" started at the JINR Information Centre in the south of Russia. Lectures, workshops, discussions were prepared for participants, where they will learn about modern methods of solving applied problems using the latest computing architectures.

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Young JINR scientists at MIPT Career Day

On 9 June, students met with young scientists from JINR as part of the MIPT Career Day. The discussion focused on career prospects for young employees working in the fields of nuclear physics, particle physics, condensed matter physics, theoretical physics, and radiobiology.

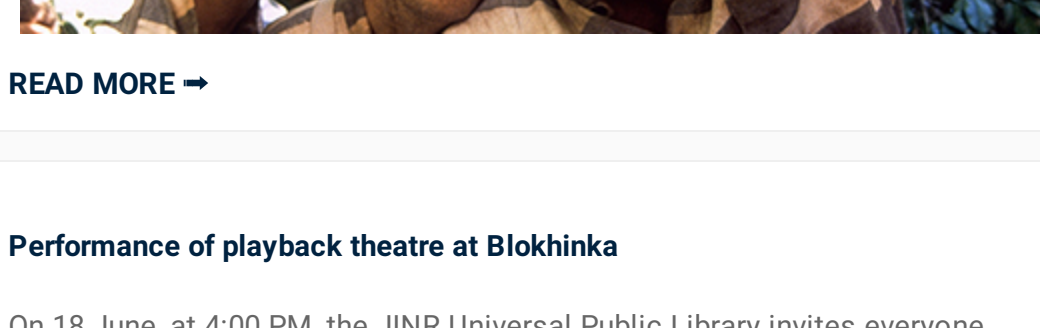


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JINR Community

JINR Cinema Club

This Friday, on 16 June, at 6:00 PM, you can watch a comedy-drama film "O Brother, Where Art Thou?" (2000). All are kindly invited! Please note that the JINR Cinema Club will be held at the JINR Universal Public Library.



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Performance of playback theatre at Blokhinka

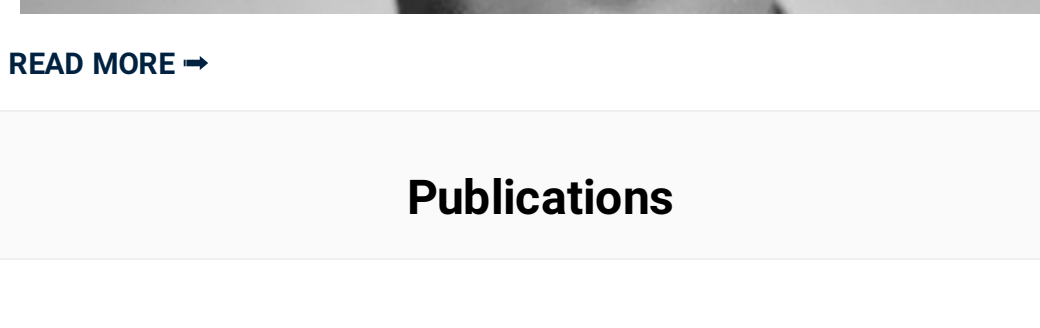
On 18 June, at 4:00 PM, the JINR Universal Public Library invites everyone interested to the performance "Once" by the 1STPLAY playback theatre. Audience's stories will come to life on stage! Free admission.

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Recalling founders

On the eve of anniversary of Bruno Pontecorvo

22 August marks the 110th anniversary of the birth of Bruno Pontecorvo, an outstanding Italian and Soviet scientist who worked at JINR. The DLNP Group of Scientific Communication has prepared a series of publications on Pontecorvo's biography and the importance of his scientific activity.



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Publications

JINR News bulletin #2 2023 issued

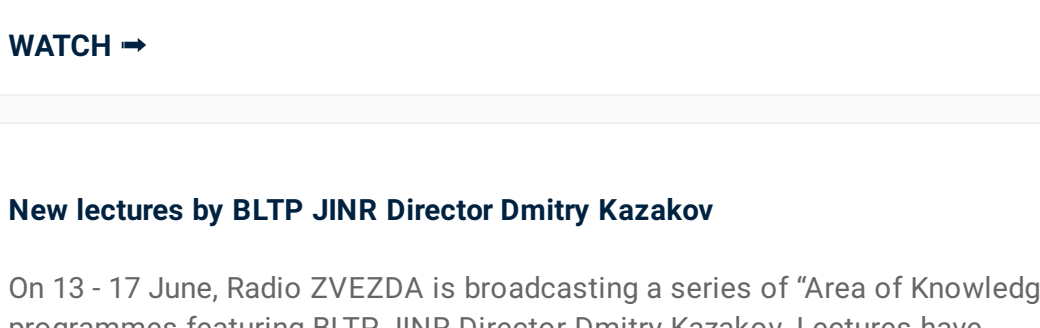
The second issue of the JINR News bulletin 2023 has been published. It provides information on new scientific results obtained at JINR Laboratories, progress in performance of large-scale experiments, and the JINR social life.

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Media

Interview with JINR Scientific Leader Victor Matveev

The fourth part of an interview "Story of gallium" with JINR Scientific Leader Victor Matveev has been issued. He spoke about the experiment on detection of solar neutrinos at Baksan, told the story of the attack on the Baksan observatory, recalled old prices for 100 g of gallium, and much more!



[WATCH →](#)

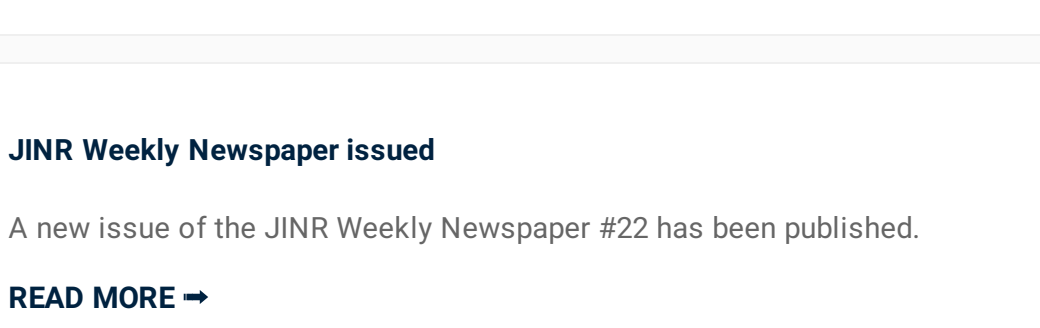
New lectures by BLTP JINR Director Dmitry Kazakov

On 13 - 17 June, Radio ZVEZDA is broadcasting a series of "Area of Knowledge" programmes featuring BLTP JINR Director Dmitry Kazakov. Lectures have already been posted, in one of which Prof. Kazakov speaks about the nature of elementary particles, and in the other one about what they actually consist of.

[WATCH or LISTEN →](#)

Archimedes Swimming Pool of JINR turns 52 years old

In honour of this celebration, archival photographs of "Archimedes" were published. You can find the images in the "Sports at JINR" VK community posts. Scroll down to see unique photos of the pool from the 1974 postcards, Academician Georgy Flerov's swim at the "Archimedes" opening, the installation of the pool roof, and much more!



[WATCH →](#)

JINR Weekly Newspaper issued

A new issue of the JINR Weekly Newspaper #22 has been published.

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Books

S&T Library exhibition "Information technologies. Artificial intelligence"

The JINR Science and Technology Library invites everyone interested to visit the exhibition "Information technologies. Artificial intelligence" (DLNP site, BLTP building, 1st floor).

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Upcoming Events

Advisory Bodies

- [15 – 16 June. 57th Meeting of the Programme Advisory Committee for Condensed Matter Physics. JINR International Conference Centre, Dubna](#)
- [21 – 22 June. 58th Meeting of the Programme Advisory Committee for Particle Physics. JINR International Conference Centre, Dubna](#)

Conferences

- [17 – 19 June. Workshop "Applied research at the NICA Complex: prospects for RNO-Alanya – JINR cooperation". NOSU after K. L. Khetagurov, Vladikavkaz](#)
- [19 – 23 June. AYSS School of accelerator physics. JINR Tourist Base "Lipnya". Lipnya Island, Ivankovskoe reservoir, Tver region](#)
- [19 – 23 June. XXX Anniversary International Seminar Phenomena in Complex Systems. Joint Institute for Power and Nuclear Research – Sosny of the National Academy of Sciences of Belarus, Minsk](#)

Seminars

- [15 June. 11:00 AM. VBLHEP. "Detector efficiency in the BM@N experiment in an argon run with a beam energy of 3.2 AGeV at the Nuclotron" by Yasily Plotnikov](#)
- [15 June. 3:30 PM. FLNR. "Peculiarities of characteristics of heavy nuclei collision reactions in the Fermi energy region" by Erdemchimeg Batchuluun and "Study of fission modes of pre-actinide and actinide nuclei formed in heavy-ion reactions" by Yulia Itkina](#)
- [19 June. 11:00 AM. BLTP. "Multiphoton spectroscopy of a dynamical axion insulator" and "Demonstration of nonlocal Josephson effect in Andreev molecules" by Kaushal Kumar Kesharpu](#)
- [19 June. 3:00 PM. FLNR. "Design and experimental characteristics of the new gas-filled separator DGFRS-2 and modeling of ion optics of the gas-filled superconducting solenoid GASSOL" by Dmitry Soloviov](#)
- [21 June. 4:00 PM. BLTP. "Spiral superconducting spin valves" by Natalia Pugach](#)

Culture

- [30 May – 2 July. daily from 1:00 to 7:00 PM, except Mondays. JINR Cultural Centre "Mir". Exhibition of interior paintings](#)
- [15 June. 7:00 PM. JINR Universal Public Library. Book club "Hairpin": discussing a book "Rebecca" by Daphne du Maurier](#)
- [15 June. 3:00 PM. JINR Cultural Centre "Mir". Gagarin Cup in Dubna](#)
- [15 June. 7:00 PM. JINR Cultural Centre "Mir". Concert "Duo & Trio"](#)
- [16 June. 6:00 PM. JINR Universal Public Library. English speaking club](#)
- [16 June. 6:00 PM. JINR Universal Public Library. JINR Cinema Club](#)
- [18 June. 4:00 PM. JINR Universal Public Library. Performance of playback theatre](#)
- [22 June. 7:00 PM. JINR Universal Public Library. Book club "Summer Reading List": discussing a novel "Lyubimov" by Andrei Sinyavsky](#)
- [22 June. 7:00 PM. JINR Cultural Centre "Mir". Evgeny Grishkovets concert](#)

[ALL JINR EVENTS →](#)