



JINR Newsletter #34, 31 August 2023

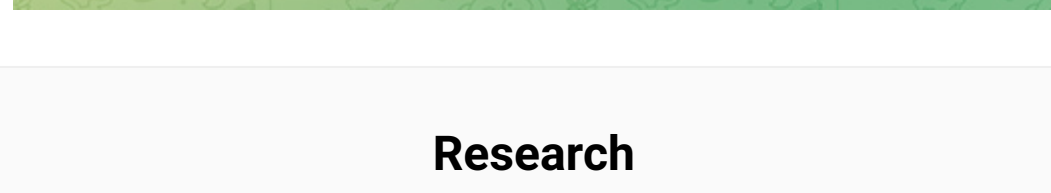
Dear colleagues and friends,

A recent article in the *Physical Review Letters* journal published by the *FASER* collaboration stated neutrino registration at the LHC. At the same time, the detected neutrinos have the highest energy ever recorded in a laboratory environment.

In addition, with the JINR participation, several interesting conferences took place in different countries of the world.

By the beginning of the academic year, the Joint Institute organized a festival of extracurricular development and training for Dubna citizens. Read about this and much more in a new issue of the JINR Newsletter.

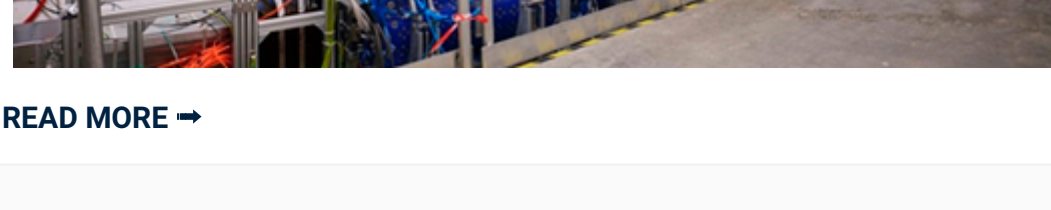
JINR Press Office



Research

Results of research on registration of neutrinos at LHC at CERN published

Neutrinos have been registered for the first time at the CERN Large Hadron Collider of the *FASER* and *SND@LHC* collaborations. Scientists believe that this achievement will make a significant contribution to the current experimental research on elementary particle physics. A DLNP researcher, a co-author of one article on the results, and a participant of the *FASER* Experiment Yuri Gornushkin spoke about the data set runs.



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Conferences

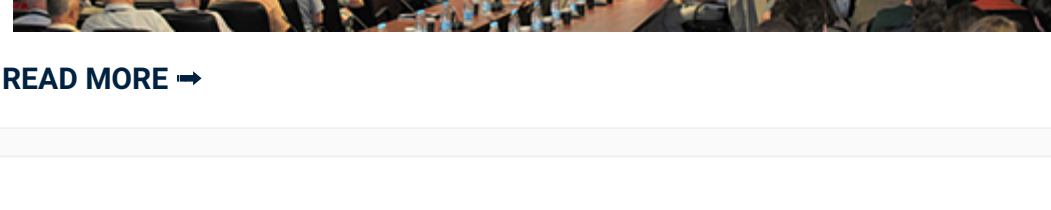
New methods of data processing at NICA discussed in St. Petersburg

On 28 - 29 August, the seminar "The use of new methods for processing data of a physical experiment. Application of machine learning methods on the NICA complex" took place in St. Petersburg. The event was held for the first time and brought together 60 specialists from leading Russian institutes.

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Conference "Actual Problems of Microworld Physics" taking place in Minsk

The conference "Actual Problems of Microworld Physics" is being held on 28 August - 3 September. This time, unlike the previous schools, the thematic coverage covers almost all the main scientific directions of JINR.



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JINR scientists at physics conference in Germany

The European Physical Society Conference on High Energy Physics has finished in Germany. JINR scientists, namely Director of the Laboratory of Theoretical Physics at JINR Dmitry Kazakov, as well as staff members of the Laboratory of High-Energy Physics Mikhail Barabanov and Elena Rogochaya, spoke at the conference.

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Awards

JINR scientist, finalist of competition for N. I. Lobachevsky Medal and Prize

A JINR researcher, RAS Professor Nikolay Tyurin is among finalists of the competition for the N. I. Lobachevsky Medal and Prize "For outstanding work in the field of fundamental and applied mathematics".

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Education

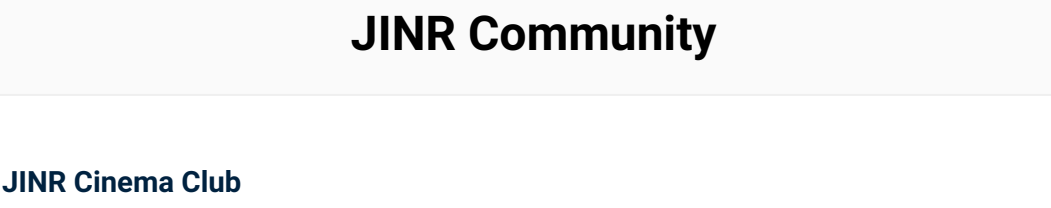
Results of 7th Summer School "Physics. Mathematics. IT"

60 pupils from 26 regions of Russia took part in the Summer School, and students and postgraduates of the university tried themselves as teachers. Pupils learned to solve non-standard tasks, mastered new skills at workshops, listened to lectures on topical scientific topics, and JINR scientists helped them.

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JINR to hold Navigator Festival for second time

On 9 September, the JINR Universal Public Library will host a Navigator Festival. At the event, parents will be able to get first-hand information about Dubna extracurricular activities for children, including summer programmes and intensive courses. Workshops, lessons, games, and other activities will be held for young guests.



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JINR Community

JINR Cinema Club

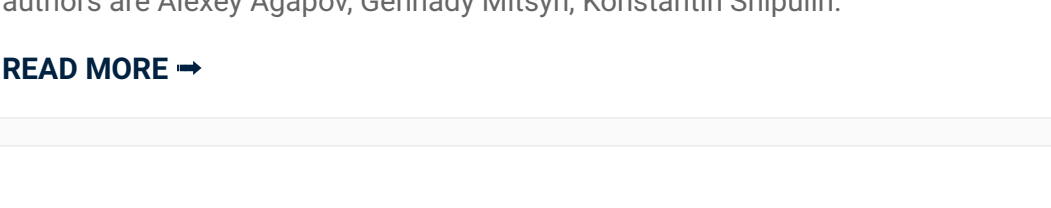
This Friday, on 1 September, at 6:00 PM, you can watch a French film "The Lovers on the Bridge" (1991). Everyone is welcome! Please note that the JINR Cinema Club is held at the JINR Universal Public Library.

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Publications

Brochure dedicated to 110th anniversary of Bruno Pontecorvo published

The brochure includes memories of a DLNP JINR chief researcher Vladimir Komarov of communication with Bruno Maksimovich, unique photos, and friendly caricatures with an outstanding scientist of the 20th century, and much more.



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Development of ionization chambers for monitoring high-intensity radiation beams

The JINR Publishing Department has issued a preprint "Development of ionization chambers for monitoring high-intensity radiation beams" P13-2023-34. The authors are Alexey Agapov, Gennady Mitsyn, Konstantin Shipulin.

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Delivery of high-intensity proton beam for the study of flash effect in radiotherapy

We offer to your attention a preprint "Delivery of high-intensity proton beam for the study of flash effect in radiotherapy" P13-2023-35 issued by the JINR Publishing Department. The authors are Alexey Agapov, Evgenia Gritskova, Sergey Gustov, Gennady Mitsyn, Alexander Molokanov, Indira Hasenova, Sergey Shvidky, Konstantin Shipulin.

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Research on survival of A549 tumour cells under proton beam irradiation in flash and conventional mode

We would like to offer you one more preprint "Research on survival of A549 tumour cells under proton beam irradiation in flash and conventional mode" P19-2023-31 issued by the JINR Publishing Department. The authors are Anna Rzyanina, Gennady Mitsyn, Alexey Agapov, Evgenia Gritskova, Svetlana Uglova, Victor Gaevsky, Konstantin Shipulin, Indira Hasenova.

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Announcements

Physics and Mathematics optional course

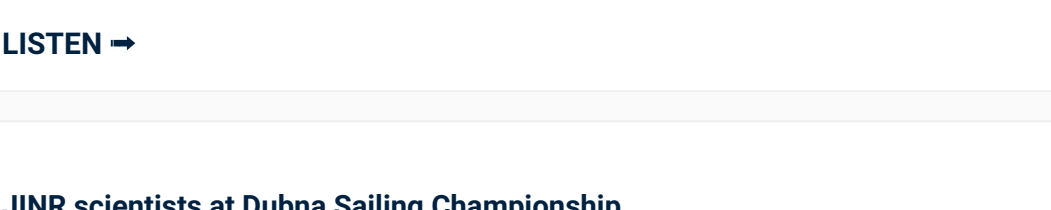
On 8 September, at School No. 9 (Sakharova str., 17), you can apply for the Physics and Mathematics optional course. To do it, you will have to take part in a survey and give an interview. Classes are held for students of the 6th - 8th forms.

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Media

Quiet on set, we're filming!

In the photos, you can see Regina Kozhina, a junior researcher at the Laboratory of Radiation Biology. If you would like to know what's going on, stay tuned.



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Film about Bruno Pontecorvo

Those who could not come to the screening of a documentary "Bruno Pontecorvo" (2003) directed by Ella Vlasova at the Cultral Centre "Mir" have a great opportunity to watch it!

[WATCH →](#)

History of creating caricatures about Bruno Pontecorvo

In the video, the 75th anniversary spoke about the history of creating cartoons in 1988 for the 75th anniversary of Bruno Pontecorvo.

[WATCH →](#)

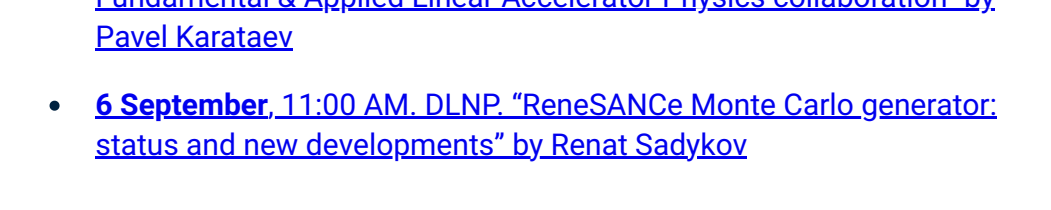
New podcast by RIA Novosti with JINR scientist

What is biosorption and how does it work? Is it possible to "mine" gold with yeast, and how do bacteria change the size of silver to nanoparticles? Inga Zinicovskaia (FLNP) answered these and other questions in a new episode of the popular science podcast "We will all die. But we are not sure".

[LISTEN →](#)

JINR scientists at Dubna Sailing Championship

Employees of the Joint Institute took part in the Dubna Sailing Championship, held from 7 to 13 August at the JINR Lipnya Recreation Centre. In total, seven yachts controlled by them were presented at the competition in the waters of the Ivankovo reservoir. In addition, children of Institute's employees steered two sailing ships. The event took place with the JINR support.



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JINR Weekly Newspaper issued

A new issue of the JINR Weekly Newspaper #32 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

- [27 August – 3 September, XV International School-Conference "Actual Problems of Microworld Physics", Minsk, Belarus](#)
- [3 – 9 September, BLTP/JINR – KITP/CAS Joint Workshop Physics of Strong Interacting Systems, Yerevan, Armenia](#)
- [4 – 8 September, XIX Workshop on High Energy Spin Physics, DSPIN-23 \(Efremov-90\), JINR, Dubna](#)

Seminars

- [31 August, 3:00 PM, BLTP "Antiworlds and primordial black holes" by Alexander Dolgov](#)
- [4 September, 4:00 PM, JINR Scientists' Club, "Creation of a system for diagnostics and control of beam parameters and study of collective effects in the storage-cooler of the VEPP-5 Injection Complex" by Vitaly Balakin](#)
- [5 September, 11:00 AM, DLNP, "FIAP International Collaboration: Fundamental & Applied Linear Accelerator Physics collaboration" by Pavel Karataev](#)
- [6 September, 11:00 AM, DLNP, "ReneSANCe Monte Carlo generator: status and new developments" by Renat Sadykov](#)

Culture

- [22 August – 3 September, daily from 1:00 to 7:00 PM, except Mondays, JINR Cultural Centre "Mir", Exhibition "Bruno Maksimovich" dedicated to 110th anniversary of Academician Bruno Pontecorvo](#)
- [31 August, 7:00 PM, JINR Universal Public Library, Summer Reading List book club: discussing a book "The Land of Foam" by Ivan Yefremov](#)
- [1 September, 5:00 PM, JINR Cultural Centre "Mir", Children holiday "Science without getting bored"](#)
- [1 September, 6:00 PM, JINR Universal Public Library, Talkative English speaking club meeting](#)
- [1 September, 6:00 PM, JINR Universal Public Library, JINR Cinema Club](#)
- [1 September, 7:00 PM, JINR Scientists' Club, Lecture "Masters of Russian Impressionism"](#)
- [2 September, 12:00 PM, JINR Cultural Centre "Mir", Performance on tale by Oscar Wilde](#)
- [5 September - 1 October, daily from 1:00 to 7:00 PM \(except Monday\), JINR Cultural Centre "Mir", Autumn art exhibition](#)
- [7 September, 7:00 PM, JINR Universal Public Library, Hairpin book club: discussing a book "Elegance of Hedgehog" by Muriel Barbery](#)

For Kids

- [31 August, 5:00 PM, JINR Universal Public Library, Mathematical Brain Ring at JINR Museum](#)

[ALL JINR EVENTS →](#)