

## JINR Newsletter #42, 26 October 2023

Dear colleagues and friends,

A number of meetings this week were dedicated to the development of international cooperation. Thus, a Coordination Committee with colleagues from Mexico and a meeting with the leadership of IThemba LABS (South Africa) took place. In addition, the Institute's representatives participated in the Meeting of the BRICS Working Group on Research Infrastructure.

The latest issue of the JINR Newsletter also features the Institute's bright scientific events: the world's first synthesis of livermorium-288 and research on the possibilities of proton flash therapy using human cell culture.

JINR Press Office



### Cooperation

#### JINR presented plans for research infrastructure development at BRICS Working Group meeting

JINR representatives participated in the 5th Meeting of the BRICS Working Group on Research Infrastructure (BRICS GRAIN), which took place from 23 to 25 October 2023 in Stellenbosch, South Africa.



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#### Meeting of JINR-Mexico Joint Coordination Committee

On 17 October, an extended meeting of the JINR-Mexico Joint Coordination Committee (JCC) took place in a hybrid format at CONAHCYT, the National Council of Humanities, Science and Technologies of Mexico. At the meeting, the parties considered and discussed fields of future cooperation and prospects for its development.

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#### IThemba LABS representative visited JINR

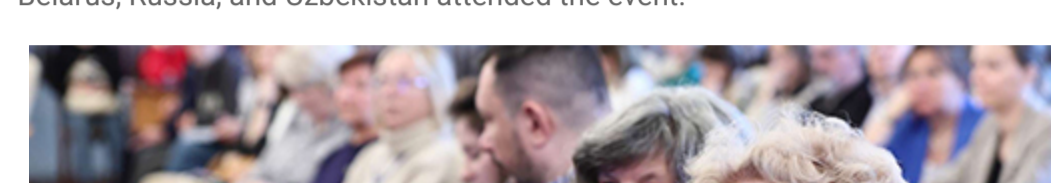
On 23 October, IThemba LABS Deputy Director Dr. Rudzani Nemutudi visited the Joint Institute. The programme of the visit included excursions to JINR laboratories and a round table with representatives of the Institute's leadership.

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### Conferences

#### Geneticists and physicists discussing mechanisms underlying life in Dubna

From 19 to 20 October, JINR hosted the conference "Molecular genetic research in radiobiology. On the 70th anniversary of the DNA structure discovery". Leading specialists in radiobiology and medical physics from Armenia, Azerbaijan, Belarus, Russia, and Uzbekistan attended the event.



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#### SPD Collaboration discussing experiment status in Samara

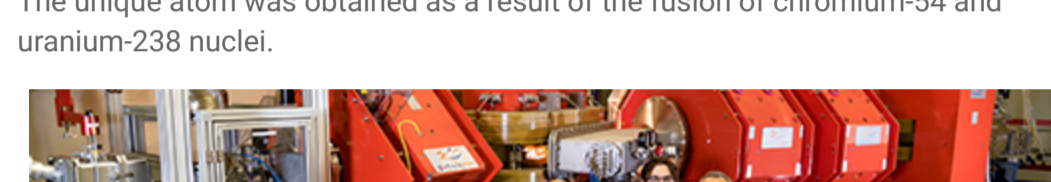
From 23 to 27 October, the 6th SPD Collaboration Meeting is taking place at Samara University. More than 150 scientists and specialists are participating in the event. The Workshop on Information Technologies in Natural Sciences will be held alongside the meeting.

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### Research

#### Livermorium-288 synthesised at JINR

The formation of the previously unknown isotope of livermorium-288 was detected by the scientists of FLNR at JINR at the Superheavy Element Factory. The unique atom was obtained as a result of the fusion of chromium-54 and uranium-238 nuclei.



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#### JINR scientists studying possibilities of proton flash therapy on human cell culture

During the research conducted at DLNP, JINR, scientists confirmed that the use of flash mode in radiotherapy will help to save healthy tissues surrounding the tumour. The results of the experiment showed a greater survival rate of cells when irradiated with protons in flash mode, in contrast to irradiation at standard dose rates.

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### Publications

#### New issue of Particles and Nuclei, Letters Journal

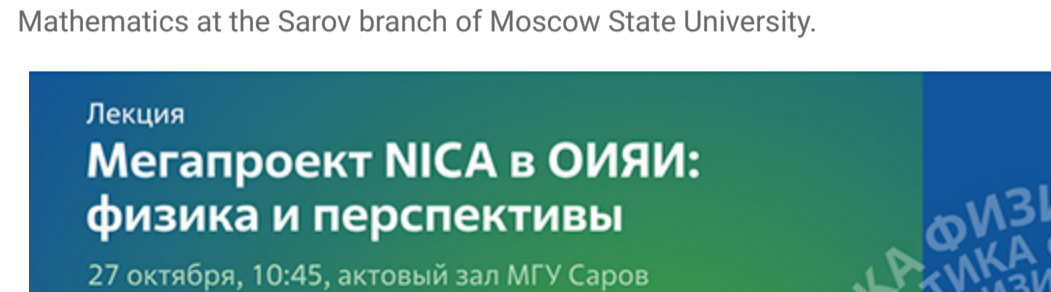
The issue of Particles and Nuclei, Letters Journal 45 has been published with results of the original theoretical, experimental, scientific-technical, methodological, and applied research.

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### Announcements

#### JINR Director to present report on NICA at NCPM seminar

JINR Director RAS Academician Grigory Trubnikov will present a report on the NICA Megaproject at the seminar of the National Centre for Physics and Mathematics at the Sarov branch of Moscow State University.



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#### Yuri Oganesian at NCPM

On 26 October, Yuri Oganesian met with students of the MSU Sarov branch and participated in the first episode of the NCPM programme. The interview with the scientist will soon be available on the centre's VK page. On 27 October, Academician Oganesian will give a lecture in the VNIIEF Scientists' Club.

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#### Helping hand at JINR

Dear colleagues, JINR employees and their relatives have an opportunity to get free psychological help. Please call +7 (968) 848-74-18 (Anna Uzikova) to make an appointment.

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#### Basketball classes at Nauka Stadium

Dear colleagues, JINR Nauka Stadium invites everyone interested to attend basketball classes. Training sessions are held twice a week: on Mondays from 6:00 PM to 7:30 PM and on Thursdays from 9:00 PM to 10:30 PM.

### JINR Community

#### JINR employees at Young Scientists Forum

Researchers of DLNP and FLNP, JINR made reports at the Young Scientists Forum, which was held from 16 to 18 October based at Far Eastern Federal University (FEFU). The Forum was organized jointly by FEFU, JINR, and National Research Nuclear University MEPhI.



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#### Medical Unit No.9 of FMBA of Russia hosted Healthy Saturday

On 21 October, 672 people had an opportunity to check their health as part of the Healthy Saturday campaign organized by the Medical Unit No.9 of the Federal Medical Biological Agency of Russia with the support of specialists from Russian medical centres. Such an event took place in Dubna for the first time.

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#### JINR Cinema Club

This Friday, on 27 October, at 6:00 PM, you can watch a British film "28 Days Later" (2002). Everyone is welcome! Please note that the JINR Cinema Club will be held at the JINR Universal Public Library.

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### Media

#### NTV interview with JINR Director released

JINR Director RAS Academician Grigory Trubnikov gave an interview to NTV presenters Vladimir Chernyshev and Vladimir Kobzykov for the new episode of the InfoShield programme. The discussion centred on the NICA project, its physical programme, and international cooperation.

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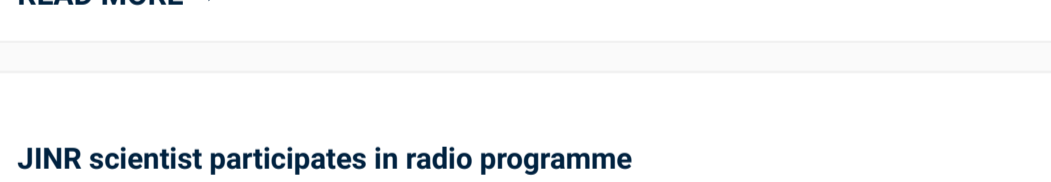
#### Interview with Alexander Olshevsky

The first part of an interview with Alexander Olshevsky (DLNP, JINR) has been issued. In this part, the scientist recalls his childhood and university years, shares his first impressions of Dubna, and talks about his participation in the ARES, SIGMA-AYAKS, DELPHI experiments and work at CERN.

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#### Filming at VBLHEP

A new episode of the popular science TV programme "Knowledge is Power" has been recently filmed at JINR. VBLHEP scientists Andrey Butenko, Sergey Merts, Anatoly Sidorin, and Dmitry Nikiforov told the film crew of the Fifth Channel about the NICA Megascience Project.



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#### JINR scientist participates in radio programme

A DLNP, JINR scientist Vladimir Rozhkov took part in the Russian Radiouniversity programme. In the new episode, listeners can learn about the development of nuclear physics in the modern world and the gradual introduction of fundamental technologies into everyday life.

[LISTEN →](#)

#### New books in S&T Library

From 23 October to 10 November, the JINR Science and Technology Library invites everyone interested to study new book acquisitions. The exhibition includes collections of lectures on astrophysics and theoretical physics, literature on nonlinear analysis, mathematical physics, electrodynamics, works on string theory, atomic physics, etc.

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#### Records of DLNP seminars

We invite you to watch records of the seminars "Beam dynamics in MSC-230 isochronous cyclotron for biomedical research" by Galina Karamysheva and "Genomic research at JINR facilities" by Kristina Afanasyeva and Anastasia Rusakovich.

[WATCH →](#)

#### Video about past week JINR events

We would like to offer to your attention a video review of bright events from the life of the Institute and Dubna.

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#### JINR Weekly Newspaper issued

A new issue of the JINR Weekly Newspaper #40 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

- **23 – 27 October.** SPD Collaboration Meeting and Workshop on Information Technology in Natural Sciences. Samara University, Samara
- **30 October – 3 November.** the 27th International Scientific Conference of Young Scientists and Specialists (AYSS-2023), JINR, Dubna

#### Seminars

- **27 October, 10:00 AM.** VBLHEP Lecture series on training of accelerator complex operators. Input and control of cryogenic liquids
- **27 October, 11:00 AM.** DLNP Lecture of DLNP project "Lifehacks of some use for a scientist". "Burnout, emotional, sensory, physical" by Oksana Pliskovskaya
- **27 October, 11:30 AM.** VBLHEP "Trajectories of bright stars and shadows near supermassive black holes as tests of gravity theories" by Alexander Zakharov
- **30 October, 10:00 AM.** VBLHEP Lecture series on training of accelerator complex operators. Power supply and energy evacuation system
- **30 October, 11:00 AM.** BLP "Properties of spectator matter in collisions of relativistic nuclei" by Alexander Svetlichny (INR, RAS, Moscow)

#### Culture

- **3 October – 5 November.** daily from 1:00 PM to 2:00 PM (except Monday) – JINR Cultural Centre "Mir". Exhibition of mosaic
- **16 October – 1 December.** daily from 2:00 PM to 7:00 PM (except Saturday and Sunday) – JINR Scientists' Club. "Artist paints Dubna" exhibition
- **26 October, 2:00 PM.** JINR Universal Public Library. Summer Reading List book club: discussing a book "Three Cups of Tea" by Greg Mortenson and David Oliver Reelin
- **27 October, 6:00 PM.** JINR Universal Public Library. English speaking club
- **27 October, 6:00 PM.** JINR Universal Public Library. Scrapbooking club
- **27 October, 6:00 PM.** JINR Universal Public Library. JINR Cinema Club
- **27 October, 7:00 PM.** JINR Cultural Centre "Mir". Stand-up show
- **28 October, 5:00 PM.** JINR Universal Public Library. Comics masterclass
- **28 October, 6:00 PM.** JINR Universal Public Library. Guttenberg's Smoking Room meeting
- **29 October, 12:00 PM.** JINR Cultural Centre "Mir". Musical for children
- **29 October, 6:00 PM.** JINR Scientists' Club. Piano music concert
- **29 October, 1:30 PM.** JINR Universal Public Library. Meeting with author of children's books
- **31 October, 6:30 PM.** JINR Universal Public Library. Dark Matter Day
- **31 October, 7:00 PM.** JINR Universal Public Library. Genealogical club's meeting

#### Sports

- **28 October, 11:00 AM.** JINR Nauka Stadium. Table tennis tournament among veterans in memory of Sergey Zinkevich
- **29 October, 10:30 AM.** JINR Sports Club. Open kettlebell lifting competition in memory of Yuri Masloboev

#### For kids

- **28 October, 5:00 PM.** JINR Universal Public Library. Let's READers

[ALL JINR EVENTS →](#)