



Postdoctoral Programme in Analysis of Experimental Data in the BM@N Project at the NICA Complex

12-month contract, renewable for another max. 24 months

Your mission

The main objective of this position is to study the interactions of relativistic heavy nuclei in the BM@N experiment at the NICA facility.

The focus of this research will be on the analysis of experimental data collected in interactions of a xenon ion beam with nuclear targets. The research work includes simulation of products of xenon-nucleus interactions in the BM@N experimental set-up. The aim of the research is to get physics results on the production of strange particles and light nuclear fragments in xenon-nucleus interactions.

Your tasks

You will work with the BM@N physics working group. Your research programme will focus on:

- Reconstruction and identification of charged strange particles and light nuclear fragments in xenon-nucleus interactions.
- Simulation of xenon-nucleus interactions in the BM@N experimental set-up to evaluate the efficiency of the reconstruction of strange charged particles and light nuclear fragments.
- Measurement of the yields of strange charged particles and light nuclear fragments in xenon-nucleus interactions.

Constraints and risks

The candidate is expected to participate in shifts during the experimental run of the BM@N experiment. During the experimental run shift work may be required at night and on weekends. The shift work will be carried out at the accelerator facility, whereby the necessary authorizations will be issued following the annual medical examination arranged by the employer.

Depending on your citizenship, you may need to obtain a visa and this process can last several months. JINR offers all the necessary support for obtaining the entry permit for the Russian Federation.

Your profile

- Highly motivated candidate with a PhD (obtained less than 5 years ago) in relativistic nuclear physics, high energy physics, experimental methods of nuclear physics or in a similar field.
- Age under 40, have not had more than 3 temporary positions.
- Strong background in experimental relativistic nuclear physics, high energy physics or experimental methods of nuclear physics is a prerequisite.
- Practical experience in experimental methods of data analysis in relativistic nuclear physics or high energy physics would be advantageous.
- As an international intergovernmental research organization, we are particularly keen to ensure that we also attract applicants from outside Russia. You must have a good knowledge of English and be willing to learn Russian (a language course will be paid for by JINR).

What we offer

High quality of life

Called the "Island of Stability", the city of Dubna is ideally located on the bank of Europe's largest waterway — the Volga River (only 2.5 hours from Moscow by train or bus and 1.5 hours by car from Sheremetyevo International Airport). It is important for us that our employees quickly and easily adapt to the new living conditions and have a healthy work-life balance. Therefore, we offer accommodation in comfortable guest-house rooms (for singles), or fully furnished flats owned by JINR, and annual paid leave.

Prospects

We guarantee you a **12-months postdoctoral contract, renewable for another max. 24 months (36 month in total)**, in a multicultural scientific environment.

Remuneration

2300 USD per month (paid in Russian rubles at the planned exchange rate (forecasted year-average, adopted in the JINR budget for the current year, which is fixed on the date of conclusion of the contract and valid throughout its entire term). In 2025, the exchange rate is 96.5 Russian rubles per 1 USD, in 2026 the planned exchange rate will be 92.2 Russian rubles per 1 USD).*

Income tax of 13% is applied. The employer shall pay no pension insurance.

*The average per capita income in the Moscow region is 110 thousand rubles.

Benefits

We offer considerable social benefits: annual paid leave of 42 calendar days with an additional one-time payment of 50 % of your monthly salary after one year of work, air fare (except for family members) at the beginning and the end of the employment period in case the terms of the contract are fulfilled, accommodation (50 %, without cost of utilities and furniture rental), free local health insurance for you and your family members, relocation assistance (reimbursement of the cost of excess baggage and transfer from/to airport at the beginning and end of the contract for all family members). We also offer free Russian courses and subsidies for the use of JINR sports infrastructure (Olympic swimming pool, stadium, gym, etc.), as well as access to a variety of cultural activities.

Apply now



Joint Institute for Nuclear Research (JINR) — operates a large park of accelerators and a reactor based intense neutron source in Dubna (Russia). From the very foundation of the Institute, the implementation of the JINR motto “Science brings nations together” has grown into a special scientific atmosphere of mutual respect and support. Let's work together to better understand the fundamental properties of matter that might enable a quantum leap in the living standards of our society.

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