Joint Institute for Nuclear Research

International Intergovernmental Organization

SCIENCE BRINGS NATIONS TOGETHER

Postdoctoral Programme in Polarized Neutron Reflectometry Investigation

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

Your mission

The main objective of this position is to study the structure and dynamics of new magnetic and superconducting low-dimensional heterostructures. The project will make a full use of the Polarized Neutron Reflectometer REMUR at IBR-2 Reactor at the Frank Laboratory of Neutron Physics (FLNP), (http://flnph.jinr.ru/). Additional investigative tools will include x-ray and synchrotron scattering, SQUID magnetometry, electric transport measurements. A significant part of the research project will be development of additional modes for polarized neutron reflectometry (secondary radiation registration, neutron reflectometry with oscillation magnetic field, spin-echo neutron reflectometry).

Your tasks

Your research program will focus on:

- Participation in conducting the independent and collaborative neutron scattering experiments using polarized neutron reflectometry method.
- Participation in conducting the independent and collaborative experiments using complementary methods.
- Data analysis on large amounts of data
- Publication of research results in peer-reviewed scientific journals.
- Presentation of results at international scientific conferences and meetings.
- Assistance to users as a local contact for experimental setup and data acquisition, participation in user education as appropriate.

Constraints and risks

Shift work and work on weekends may be necessary, remote work is allowed.

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The work is partially carried out at the reactor facilities, 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 physics or in a similar field.
- Age under 40, have not had more than 3 temporary positions.
- Experience in the fields of optics and solid-state nano-systems will be an advantage.
- As an international intergovernmental research organization, we are particularly keen to ensure that we also attract applicants from outside of Russia. You must have good knowledge of English and be willing to learn Russian (a language course will be provided 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), which is adopted with the JINR budget for the current year. In 2023, the exchange rate is 69.2 Russian rubles per 1 USD.
Income tax of 13% is applied. The employer shall pay no pension insurance.

Benefits

We offer considerable social benefits: settling-in allowance, air fare (except for family members), free local health insurance for you and your family members, relocation assistance (under certain conditions), free public school or kindergarten attendance for children. 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

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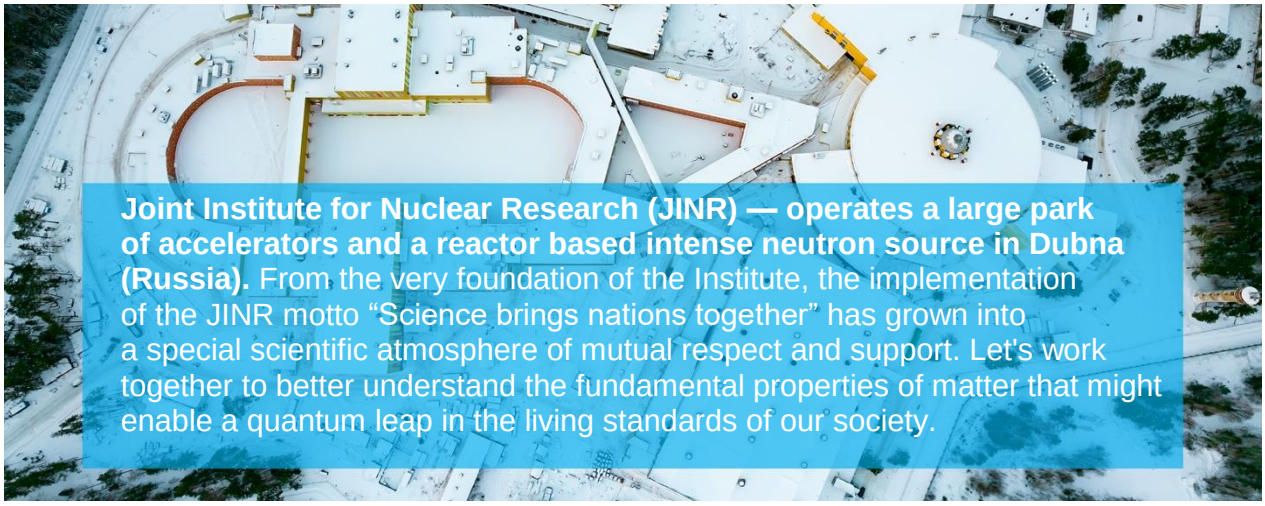

Joint Institute for Nuclear Research (JINR) — operates a large park of accelerators and a reactor based intense neutron source in Dubna (Russia). From the very foundation of the Institute, the implementation of the JINR motto “Science brings nations together” has grown into a special scientific atmosphere 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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