



## **Postdoctoral Programme in Development of a Prototype of High-energy Underwater Neutrino Telescope Project (HUNT) at Lake Baikal**

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

### **Your mission**

The main objective of this position is to develop a prototype for the next generation neutrino telescope — HUNT (High-energy Underwater Neutrino Telescope Project) — a possible joint experiment between China and Russia.

### **Your tasks**

You will work with the JINR group of the Baikal-GVD experiment. Your research programme will include:

- Optimization of HUNT detector layout, design of trigger algorithm and performance expectation.
- Development of high-energy neutrino generator, GPU-based photon tracking simulation and event reconstruction.
- Cooperate with China team to participate in the development of the prototype of HUNT project.
- Participate in the shift work of Baikal-GVD and DAQ.
- Design, tests, calibration and analysis of the prototype components.
- Commissioning of the prototype components.

### **Constraints and risks**

The candidate is expected to undertake trips to the Baikal Lake for periods varying from 1 week to 2 months.

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 particle physics.
- Age under 40, have not had more than 3 temporary positions.
- Strong background in experimental physics is a prerequisite.
- Practical experience in analysis on inductively coupled plasma methods would be advantageous.
- 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

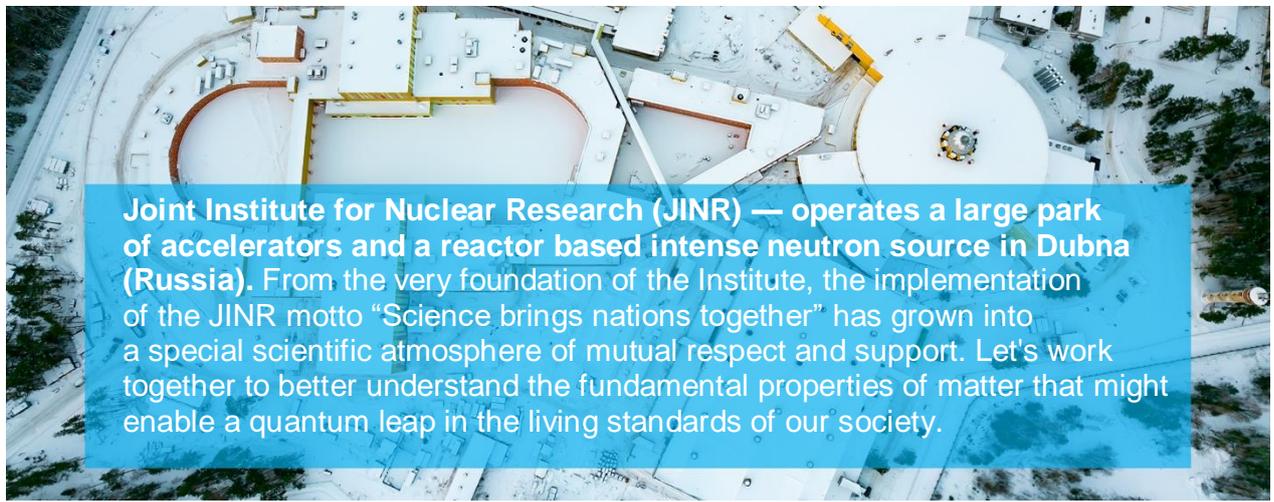
2300 USD per month, paid in Russian rubles at the planned exchange rate (forecasted year-average), which is adopted with the JINR budget for the current year. In 2023, the exchange rate is 69.2 Russian rubles per 1 USD.

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](#)



**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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