

General information

Reference: FLNP JINR-PostDoc-2019-11

Workplace : Frank Laboratory of Neutron Physics JINR (FLNP JINR)

Date of publication : November 1st, 2019

Type of Contract : research fellow

Contract Period : 12 – 36 months taking into consideration the results achieved during the 12 months

Expected date of employment : 15 May 2020

Proportion of work : Full time

Remuneration : approximately 30000 USD gross per year paid in rubles. Final amount will be commensurate with qualifications and experience. 13% income tax is applied in accordance with the RF regulations. Social package: see additional information below

Desired level of education: PhD

Experience required 2 to 5 years of postdoctoral experience.

Missions

The FLNP JINR has a 60 years experience in development of pulsed neutron sources. The IBR-2 pulsed fast reactor can be rightly referred to as a record-breaking neutron source both as to the intensity of neutron flux in pulse and as to the engineering solutions allowing us to achieve it. IBR-2 is a fast pulsed reactor with mechanical modulation of reactivity.

FLNP JINR has a specialized workgroup for nuclear safety investigations.

The research fellow has to participate in the development of new methods for statistical analysis of reactor data based on neural networks and pattern recognition in diagnostics of the IBR-2 reactor.

Activities

Participation in the development of new methods for statistical analysis of reactor data; assistance with realization of scientific experiments and research in reactor dynamics; performance of scientific research in neutron and physical analyses; processing and spectral analysis of experimental data using the Fourier transform; possible supervision of students and internships.

Skills

The candidate should have a PhD in nuclear physics and proven experience on running research in the field of reactor physics; general software knowledge and basic programming skills; English proficiency.

Work Context

WORKPLACE: The job will develop in close collaboration with the Nuclear Safety Group at the Frank Laboratory of Neutron Physics. The research activities will be performed at the IBR-2 reactor control and management systems. The Group's total staff is 8 and includes 3 PhD.

Constraints and risks

The postdoctoral fellow will be expected to undertake international travel. During experiments shift work and working on weekends may be necessary. The experiments will be carried out at IBR-2 reactor whereby the necessary authorizations will be attributed following a yearly medical examination arranged by the laboratory.

Additional Information

Applications should include a detailed CV, a brief statement of research interests, list of publications and at least two letters of reference forwarded to Dr. Otilia Ana Culicov culicov@nf.jinr.ru before February 1st 2020.

Social package offered by JINR:

- The employer offers free health insurance covering medical services in the frame of the Russian compulsory medical insurance system.
- The employer will pay no pension insurance.
- The employer can offer accommodation in its own apartments (one-, two- or three-room flat depending on the number of family members) in the limits of availability and the laboratory can partly offset the rent expenses.
- Half price access to the JINR Olympic-size swimming pool and preferential access to the sport infrastructure of JINR.

Short-listed candidates will be invited to an interview, remotely, or in person.