



Direction de la Recherche Fondamentale
Institut de Recherche sur les lois Fondamentales de l'Univers
Département de Physique Nucléaire



Saclay, June, 2021.

Subject: Post-doctoral position on detector development for neutron time-of-flight measurements

The Nuclear Physics Department (DPhN) of Irfu at CEA Saclay has opened a position for a two-year post-doctoral research fellow.

Candidates should have a PhD in experimental physics, and preferably have experience with detector simulations. Applications should contain a CV, a motivation letter, the contact information of two referees, and should be sent before **August 31, 2021** by e-mail to Eric.Berthoumieux@cea.fr.

The appointed candidate will be based at Saclay near Paris, and will work in a team on the development of Micromegas detectors for measurements at neutron beam facilities. The work involves detector studies by simulations using codes like GEANT4, as well as detector optimization, data acquisition, analysis, and measurements at neutron beam facilities. The candidate will also be member of the n_TOF collaboration at CERN.

Irfu has a long-standing track of Micromegas detector development for a large variety of physics and technological projects. One group of the Nuclear Physics Department of the institute is involved in neutron-induced reaction research with pulsed neutron beam facilities. The group is currently developing a new generation Micromegas detector with tracking capabilities for neutron-induced reactions. The postdoc will reinforce the team working on this project.

The Nuclear Physics Division (DPhN) of the Institute of Research into the Fundamental Laws of the Universe (Irfu) is located at CEA Paris-Saclay (France). Irfu is a highly dynamic scientific environment including research divisions on particle physics and astrophysics, as well as very strong technical and engineering divisions with top-level skills in instrumentation, cryogenics and accelerator technologies. This concentration of resources allows the scientific teams to have a leading role in many physics program all around the world. Inside Irfu, DPhN focuses its research on the nucleon and the nucleus, with studies ranging from nuclear structure and reactions to hadron structure and quark gluon plasma.