

Postdoctoral Research Position in CEA Saclay

For the development of a high-efficiency Micro-Pattern Gaseous Detector for thermal neutrons

The CEA Saclay (French Alternative Energies and Atomic Energy Commission) is one of the major research centers in Europe devoted to technological developments in the fields of Physical Sciences, Nuclear Energy and Information Technologies with around 4000 employees. The CEA Saclay / DSM - IRFU "Institute of Research into the Fundamental Laws of the Universe" has a long and diversified experience in the development of modern gaseous detector technologies. It pioneered the concept of the MICRO-Mesh Gaseous Structure (Micromegas) for many applications and acquired a leading experience in the field. It was one of the founding members of the RD51 Collaboration at CERN for "Development of Micro-Pattern Gas Detector (MPGD) Technologies".

The CEA Saclay / LLB is a major Research Infrastructure devoted to the study of condensed matter by thermal neutron scattering. It constructs and operates spectrometers around Orphée, a 14MW reactor operated by the CEA since 1980. The three missions of this national large scale facility are fundamental research, service and development, training and education. As a service institute the LLB makes its facilities and expertise available to visiting scientists from France and foreign countries. Every year, about 500 researchers visit the LLB and perform their experiments on the 20 spectrometers available.

IRFU and LLB have a joint effort within the framework of the FP7/NMI3-II European program for Neutron Scattering and Muon Spectroscopy to propose and develop innovative detector technologies to replace ^3He gaseous detectors. They have an opening for a Post-Doc position for a period of one year hosted in the "Electronics, Detectors & Computer Division (SEDI)" of IRFU. The selected candidate will take important responsibilities within the IRFU-LLB NMI3-II project. He/she is expected to make a major contribution to the design and optimization of a Micro-Pattern Gaseous Detector for high-efficiency thermal neutron detection. He/she will have some freedom to participate in a variety of hardware and software activities, from the detector simulations, design and prototyping, to the detector validation tests and data analysis.

Candidates must have a PhD degree in experimental physics and several years of experience working with modern gaseous detectors, associated electronics and data acquisition systems.

Interested candidates should provide a motivation letter, Curriculum Vitae and the name of two references sent to Alain Delbart (alain.delbart@cea.fr) and Alain Menelle (alain.menelle@cea.fr).

The deadline for applications is december 1st, 2012.