

### **Postdoc Position at Laboratoire Léon Brillouin**

The Laboratoire Léon Brillouin (LLB) is a French Research Infrastructure jointly supported by the 'Commissariat à l'Energie Atomique et aux Energies Alternatives (CEA)' and the 'Centre National de la Recherche Scientifique (CNRS)'; it builds and operates spectrometers around Orphée, a 14MW reactor. The LLB is rather unique among neutron centers worldwide because it was specified from the outset to operate both as a large-scale facility open to a user community as well as a research institute in charge of developing its own research programs. In view of the duality of its mission, the objectives of the LLB are to perform research in its own scientific programs, to promote the use of diffraction and neutron spectroscopy, to welcome and assist experimentalists, subsequently ensuring training and education, and providing access for industrial partners. These activities are enduring and complementary to international centers, such as the Institute Laue-Langevin and cooperation programs with other national centers. The LLB is strongly involved in the preparation of the new European Neutron Spallation Source ESS that will start in Sweden (Lund) in 2019 with the development of Working Packages (WP). These WP, simulations, tests, preliminary studies, will serve for the design, the choice and the technical options of the future spectrometers of ESS that will be proposed to the scientific community. (<http://www-llb.cea.fr>)

### **Requirements**

In the current active phase design of the ESS, we are looking for a young and strongly motivated postdoctoral scientist with a background in neutron science to develop a study associating GISANS (Grazing Incidence Small Angle Neutron Scattering) and VSANS (Very Small Angle Neutron Scattering). The purpose of the project is to evaluate (with simulations) the performance of a GISANS/VSANS setup on a long pulsed spallation source and to study (with experiences) the volume to surface transfer evolutions that can be found at the nanometer scale in various domains of the physics, from soft matter/biology to magnetism. The successful candidate will be part of the Large Scale Structure group of LLB, with assignment to SANS instruments suite at LLB (2 classical SANS, one VSANS existing spectrometers and one under construction, PA20). The position will also allow the successful candidate to develop her/his own scientific program by taking advantage of the large in-house capabilities in soft matter/bio-inspired or magnetism systems research including neutron and support laboratories and access the large scientific area around the 'plateau de Saclay'.

### **Qualifications**

Candidates are expected to have a PhD or similar in physics, chemistry or life sciences. Experimental experience with radiation techniques (X-rays or neutron scattering) is a prerequisite. Programming skills and knowledge of neutron instrumentation would be advantageous. Oral and written french skills are desirable.

### **What LLB can offer?**

Opportunity to work in an international environment and develop collaborations in particular with Swedish researchers.  
Unique opportunity to be involved from an early stage, in the development of methods for the European Spallation Source, the future world-leading center for materials research.

### **Duration & Location**

The position is a one year renewable term employment agreement by CEA, CNRS, LLB. The successful candidate will be located at LLB, Saclay, France.

### **Start date**

The position is to be filled in 2013.

### **Application & Contact**

[jacques.jestin@cea.fr](mailto:jacques.jestin@cea.fr)