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VACANCY

The Institut Laue-Langevin (ILL), situated in Grenoble, France, is Europe's leading research facility for fundamental research using neutrons as probe. The ILL operates the brightest neutron steady source in the world, delivering intense neutron beams to 40 unique scientific instruments. The Institute welcomes over 2000 visits of scientists per year to carry out world-class research in solid-state physics, crystallography, soft matter, biology, chemistry and fundamental physics.

Are you looking for an opportunity to develop expertise, broaden experience and interact with leading scientists from around the world? We currently have a vacancy for a:

Post Doctoral fellow in Neutron Strain Scanning (F/M)

SALSA (Stress Analyser for Large Scaled engineering Applications) is a world-leading instrument using neutron diffraction for the non-destructive mapping of strain/stress-fields in polycrystalline materials and engineering structures.

The EU project BrightnESS 2 aims at exploring and illustrating new ways of working for the most efficient usage of neutrons in Europe, with particular emphasis in engineering and life sciences. SALSA scientists are leading the Pilot Engineering package towards the definition of a *Neutron Quality Label* in collaboration with European strain mapping instruments.

Duties:

You will work together with the SALSA team and other European partners in order to:

- Define a common calibration protocol among EU stress mapping instruments, including: sample, measurement, nomenclature, protocol and report.
- Perform testing campaigns, including experimental beam time and data analysis in the different partner institutes.
- Compare the results of the different instruments
- Standardize a protocol report
- Define and measure a representative engineering component under calibrated conditions in the different partner institutes
- Propose developments for the SALSA instrument
- Design and create website contents about residual stress neutron measurements.

Qualifications and experience:

PhD in physics, materials science or equivalent with maximum 2 years of experience.

You have experience in neutron/X-ray stress determination, engineering and materials science. You have adequate communication skills to coordinate with project partners across Europe and to promote the technique within academic and industrial users. Computing skills and a general interest in software development would be an advantage.

Language skills:

As an international research centre, we are particularly keen to ensure that we also attract applicants from outside France. You must have a sound knowledge of English and be willing to learn French (a language course will be paid for by the ILL). Knowledge of German would be an advantage.

Contract conditions:

Post-Doctoral contract of 18 months, renewable for a further 6 to 12-month period funded by the BrightnESS 2 project.

Note that only candidates holding a PhD obtained less than 2 years ago are eligible for Post-doctoral positions.

Further information can be obtained by contacting Dr. Sandra CABEZA, e-mail: cabeza@ill.eu (**please do not send your application to this address**).

Benefits:

An expatriation allowance, relocation assistance and language courses may be offered (for more information, please consult our [employment conditions](#)).

How to apply:

Please submit your CV and motivation letter on line with a list of your peer-reviewed publications and the names of 2 references, including one from your present work place, **no later than 07.04.2019**, via our website:

www.ill.eu/careers (Vacancy reference: **19/16**).

Preliminary web interviews will take place around 15th April 2019. Estimated starting date is **1 June 2019**.

We are committed to equal opportunity and diversity; we therefore encourage anyone with relevant qualifications to apply.