Post-doctoral position in experimental nuclear physics at the CENBG

Context
The Centre d'Etudes Nucléaires of Bordeaux-Gradignan (CENBG) is a nuclear-physics laboratory located in Bordeaux, France. Our group is involved in a program of nuclear-data measurements for fundamental nuclear physics and technological applications. We use different experimental approaches: indirect measurements with the surrogate-reaction method, high-precision neutron cross-section measurements and fission studies via the measurement of fission-fragment yields. We wish to develop a very ambitious project to perform nuclear-reaction measurements in inverse kinematics at storage rings. We carry out our projects within nuclear-data programs at a national level and a European level, and are involved in various international collaborations.

Objectives
You will develop the innovative project for the study of nuclear reactions in inverse kinematics at storage rings. Feasibility studies will be first conducted, followed by the development and test of a detection system. In parallel, you will be also expected to participate to the realisation of different experiments of the group and possibly analyse data and work in the interpretation of the results.

Activities
-Feasibility studies
-Ion-optic simulations and detector simulations
-Design, development and integration of the detection system in collaboration with the engineers from the CENBG
-Detector commissioning
-Participation to experiments
-Data analysis

Skills
- PhD in experimental nuclear physics
- Experience in the simulation of experiments with codes like GEANT4 and/or ion-optics codes
- Experience with silicon detectors and electromagnetic spectrometers/separators
- Experience in data analysis with ROOT
- Experience with storage rings and/or ultrahigh vacuum would be very beneficial

Duration: 24 months

Expected date of employment: November 2017

Gross salary: 2500 - 2700 Euros

Contact information: Send a cover letter, a CV and two reference letters to Beatriz Jurado (jurado@cenbg.in2p3.fr) before **15 September 2017**.