



Call for Candidates

The *Laboratoire d'Étude du Noyau Atomique*, (LENA) for the study of the atomic nucleus is opening a staff scientist position for a physicist in the field of experimental nuclear physics, with a focus on spectroscopic studies of the heaviest nuclei.

LENA is part of the Nuclear Physics Division (SPhN) of the Institute for the study of the fundamental laws of the Universe (IRFU) located at CEA-Saclay. IRFU is a highly dynamic scientific environment including also 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 technology. It benefits from several fully equipped on-site workshops. This concentration of resources allows the scientific teams to have a leading role in many physics program all around the world. The successful candidate will work in a team composed of twelve permanent staff physicists working in the field of low-energy nuclear structure physics, covering four main areas: exotic nuclei, shapes of the nuclei, very- and superheavy elements, and fundamental nuclear theory.

The objective of our “superheavy nuclei” activity is to study the structure of the heaviest nuclei using spectroscopy techniques. For several years, we have been pursuing an experimental program in Jyväskylä and in Ganil, based on the prompt and decay spectroscopy of very and superheavy nuclei. We have also a strong activity in the R&D of instrumentation for these studies. We are deeply involved in the development of the Super Separator Spectrometer S^3 (as co-spokesperson) and its implantation-decay station *SIRIUS* (as spokesperson). We are also leading the development of the gas-filled mode for the VAMOS spectrometer, which will be used in conjunction with *AGATA* to perform the prompt spectroscopy of heavy nuclei with an unprecedented efficiency. These projects are currently in the construction phase and will be in operation in the coming years.

The candidate will strengthen our team, with the goal of building an experimental program centred on the S^3 /*SIRIUS* and *Vamos Gas-filled/AGATA* projects. She/He will be involved in the upcoming commissioning of these facilities and in the first experiments. She/He will have an active role in the physics program: she/he will propose new experiments, take part in the preparation of the setups and in the data taking, and finally analyse the data. All these different stages will be performed in collaboration with the rest of the team, engineering support and theoreticians.

The candidate is expected to have a PhD in nuclear physics and preferably several years of post-doctoral experience. She/He will show an outstanding record in experimental nuclear physics and will have excellent skills in nuclear spectroscopy. She/He should also have a good knowledge of the associated instrumentation: spectrometers and separators, particle and gamma detectors. She/He should show a high capability to work in international teams and be willing to take initiatives.

The application will be composed of:

- A curriculum vitae
- A letter of motivation (3-4 pages) including the candidate's research project.
- A list of publications, talks in conferences and seminars
- The jury reports on their PhD manuscript and/or PhD defense.
- 2-3 letters of recommendation, directly sent to the address below

Complete applications should be sent in pdf format at the latest on the 20th of May 2016 to the following e-mail address: danielle.coret@cea.fr

Or by postal mail:

Danielle CORET

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A local committee will establish the list of candidates selected for an interview at the beginning of June. The interviews are foreseen on the 20-22nd of June.

For further information about the LENA laboratory, please contact antoine.drouart@cea.fr