

The CEA Paris-Saclay Nucleon Structure Laboratory (LSN) is opening a staff scientist position for an outstanding physicist in the field of experimental hadron physics, with a focus on both the development of the Electron-Ion Collider (EIC) project and the experiments using the recent 12GeV upgrade of the Jefferson Lab (US) electron accelerator.

The LSN is part of the Nuclear Physics Division (SPhN) of the Institute of Research into the Fundamental Laws of the Universe (Irfu) located at CEA Paris-Saclay (France). It is composed of twelve permanent staff physicists working in the field of hadron physics on both theoretical and experimental aspects, with involvements at Jefferson Lab and at CERN. Irfu is a highly dynamic scientific environment including research divisions on astrophysics, nuclear and particle physics as well as strong technical and engineering divisions in instrumentation, cryogenics and accelerator technologies. Inside Irfu, SPhN focuses its research on the nucleon and the nucleus, with studies ranging from nuclear structure and reactions to hadron structure and quark gluon plasma.

The LSN has a strong commitment in the experimental and theoretical investigation of the three dimensional structure of the nucleon. This is achieved through the measurement of observables in deep exclusive scattering processes, related to the so-called Generalized Partons Distributions (GPDs). In particular, LSN physicists lead the Deeply Virtual Compton Scattering (DVCS) experimental program using CLAS12 in Jefferson Lab Hall B. The LSN is currently positioning itself to be a major actor in the US-based EIC project, on the hardware side with the development of innovative trackers thanks to R&D on state-of-the-art detectors. On the theory side, LSN physicists are pushing the limits of GPD phenomenology to high energy.

The candidate will invest a significant amount of her/his time leading the LSN efforts towards a strong implication in the EIC project in the US. The individual will take a major role in the definition and optimization of the EIC detectors developed at Irfu. In addition, she/he is encouraged to develop an original and ambitious science program at the EIC. Because first EIC data will come no earlier than in 10 years, the candidate is expected to take part in the experimental DVCS program at Jefferson Lab.

A Ph.D. or equivalent in experimental nuclear or particle physics with no less than two years of post-doctoral experience is required. In-depth experience in intermediate/high energy experiments with a broad range of detector systems, assuming an excellent knowledge about their functioning, and their integration, is required. A solid background in QCD, in GEANT Monte Carlo simulations, as well as in data analysis would be beneficial. Some experience in collider experiments would be a strong asset for the planned EIC studies.

Candidates should send a cover letter describing their research activities and prospects, a Curriculum Vitae including a list of recent or important publications, at least two letters of recommendation, and when applicable a copy of their PhD thesis as well as the jury reports on their manuscript and/or PhD defense. Documents should be sent preferably by email to danielle.coret@cea.fr (cc: herve.moutarde@cea.fr), or alternatively by postal mail to:

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For full consideration, all application materials must be submitted by April 14th 2017. A committee will release the list of candidates selected for an interview at the beginning of May 2017. The interviews of selected candidates are foreseen mid-June 2017.

For inquiries please contact Hervé Moutarde (herve.moutarde@cea.fr).