

PostDoctoral Position ALICE experiment at CERN-LHC Institut de Physique Nucléaire de Lyon

The Institut de Physique Nucléaire of Lyon, France (IPNL) is seeking to fill a 2-year postdoctoral fellowship on CNRS-IN2P3 funding in the field of experimental heavy-ion physics with ALICE at the CERN-LHC. The group is strongly involved in the R&D of the Muon Forward Tracker (MFT) in ALICE. The MFT is a Si-pixel tracking detector designed to add vertexing capabilities to the MUON spectrometer at forward rapidity. With the MFT, ALICE will gain access to new measurements currently out of reach with the MUON spectrometer alone and increase the sensitivity of several other measurements. The MFT will be installed during the Long Shutdown 2 (LS2) scheduled during 2019-2020.

Job Description

The successful candidate is expected to play a leading role in the design, production and tests of the readout chain of the MFT. The MFT will use the ALPIDE Si-pixel sensor, mainly designed at CERN, and used as well within the upgrade of the Inner Tracking System (ITS) of ALICE. The MFT will be equipped with the same data concentrator board (Readout Unit, RU) as of the ITS. Therefore, the candidate will work in close contact with the readout team of the ITS project at CERN and with the electronics engineers of the MFT project from France, China and Peru. Depending on his/her autonomy and leadership skills, the candidate will have the charge to co-ordinate the MFT readout work package activities with the help of the MFT project management.

The candidate might also participate to the data analysis topics presently under study in the group using the MUON spectrometer (low mass vector mesons, J/Psi flow) and the development of the simulation to assess in more detail the physics perspectives of these topics with the MFT.

The candidate will be stationed at the IPN Lyon. Regular trips to CERN are foreseen.

Qualifications and skills

- PhD in experimental particle or nuclear physics since less than 6 years
- Strong knowledge in detector and readout electronics technologies commonly used in high-energy nuclear and particle physics experiments is highly desired
- Experience in FPGA programming is of advantage
- Knowledge and experience in analysis of large volume data sets in particle physics experiments (C++ programming)
- Excellent verbal and written communication skills in an international team environment
- Autonomy, leadership and team coordination skills

Information and application

The appointment is expected to be effective from April 2017, or as soon as possible thereafter. More information about this position can be obtained from the principle supervisor Raphael Tieulent (raphael.tieulent@cern.ch). To whom all qualified applicants are encouraged to apply by sending a cover letter and a curriculum vitae including a brief description of your research interests before March 1st, 2017.