

Postdoctoral position in experimental particle physics Laboratoire Leprince-Ringuet – Ecole Polytechnique



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The CMS group at the Laboratoire Leprince-Ringuet, Ecole Polytechnique, is inviting applications for a two-years postdoctoral position scheduled to start in December 2018.

The group is a founding member of the CMS Collaboration. It has designed, built, and is responsible for the operation of the Level-1 (L1) trigger for the electromagnetic calorimeter (ECAL). It has also designed the calorimeter mechanics and contributed to the front-end readout electronics. It has major involvement in particle reconstruction and identification with the e/γ and tau Physics Object Groups, and contributed to the development of the Particle Flow event reconstruction. It is among the leading protagonists within the CMS Collaboration in electroweak (di-bosons, triple gauge couplings, etc.), heavy ions, and Higgs physics.

The group is also strongly involved in the development of the future high-granularity endcap calorimeter (HGCAL) for the Phase 2 of the LHC, in particular on its mechanical design, on the generation of the L1 trigger primitives, and on the development of offline reconstruction algorithms. In addition, it is participating in the beam tests of the detector prototypes.

The successful candidate is expected to contribute to the development of the reconstruction and identification algorithms of electrons, photons, and tau leptons to be implemented within the HGCAL L1 trigger system. This work requires good experience in data analysis in high energy physics, as well as a good understanding of hardware and detector operations. Knowledge and experience in C++ and/or Python programming is required and familiarity with firmware development would be desirable.

Applications, including a CV, a summary of research activities, a brief statement of research interests, and at least two letters of reference should be sent to jean-baptiste.sauvan@cern.ch until October 31st 2018.

This position is funded by the French ANR (Agence Nationale de la Recherche).

