



Post-doc Recruitment in Experimental Particle Physics Laboratoire Leprince Ringuet & P2IO – Ecole Polytechnique

The CMS & CALICE groups at the Laboratoire Leprince-Ringuet (LLR), Ecole polytechnique, are inviting applications for a post-doctoral position of 2 years, with a possibility of 1 year extension, scheduled to start in Fall 2016

The experimental High Energy laboratories of Ecole polytechnique (LLR and Omega) have been a pioneering force in establishing and validating the concept of high-granular calorimeters optimised for Particle Flow reconstruction. First in the context of the CALICE collaboration developing a highly-granular Silicon-Tungsten ECAL for the future lepton colliders, and more recently for CMS and the HGCAL project, a time capable highly-granular Si-based calorimeter for the CMS Endcaps Phase II upgrade.

The CALICE group leads the efforts toward the completion and testing of a technological prototype at CERN, and its adaptation to the ILD experiments.

The CMS group has responsibilities in Mechanics and Level 1 Trigger and strong involvements in simulations, with an emphasis on the electromagnetic part for the HGCAL. The group is also involved in the actual data taking and analysis of the CMS experiment for Higgs, Electroweak, and BSM Physics and as responsibilities for the actual ECAL trigger.

The successful candidate must have a PhD in particle physics and should show strong interest and skills in detector instrumentation and data analysis. He/She will contribute to preparation and analysis of test beams, detector design simulations, advanced particle reconstruction algorithms and analysis benchmarks for the CMS HGCAL towards a Technical Design Report in preparation for HL-LHC. He/She will also get involved in the test beam and analysis of the CALICE prototypes at CERN which shares many common aspects.

The position is financed by the excellence cluster P2IO as part of the R&D project HIGHTEC on highly granular calorimeters with silicon sensors at the LHC and at a future Linear Collider. In the frame of HIGHTEC interaction with the ATLAS, CMS and ILC groups at LAL, LLR and CEA is an essential part of this project.

Applications including a detailed CV (with a short summary of research activities), at least 2 letters of recommendation and a short research plan (one page max.) should be sent (.pdf files) to Vincent Boudry and Christophe Ochando. The position is open until filled.

For further information

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References:

<http://www.linearcollider.org/about>

<https://twiki.cern.ch/twiki/bin/view/CALICE/>

<http://cms.web.cern.ch/>

CMS Technical Proposal for Phase II Upgrade:

<https://cds.cern.ch/record/2020886?ln=en>