PhD student position in experimental particle physics (LHCb)

The High Energy Physics Laboratory [1] of EPFL, the Swiss Federal Institute of Technology in Lausanne, invites applications for a PhD student position in experimental particle physics (LHCb experiment).

LHCb [2] is a flavour physics experiment running at the Large Hadron Collider at CERN, leader in the searches for physics beyond the Standard Model of particle physics. The successful candidate will be expected to perform data analysis under the supervision of Dr. Merli, investigating displaced vertex signatures with the Run3 dataset which LHCb is currently taking. Their PhD thesis will focus on the implementation of novel reconstruction techniques to test the existence of heavy neutral leptons, suggested by neutrino oscillations but never discovered so far.

The position, which also involves teaching duties at Bachelor or Master level, becomes available from February 1, 2024. The selected PhD student will need to enrol in the Physics program of the EPFL doctoral school [3], and the employment runs up to a total of four years. Doctoral school information and employment conditions at EPFL may be consulted online [3-5]. Applicants are expected to hold a Master degree (or equivalent) in Physics at the start of employment. The ideal candidate has a strong motivation for fundamental research, and has received education in Particle Physics. Experience with data analysis, computer programming and/or particle detectors is an advantage.

EPFL, as well as CERN, offers a stimulating multicultural working environment at the forefront of fundamental research. The position includes the possibility of frequent journeys between CERN and EPFL.

Applicants should prepare a motivation letter, CV, scans of the higher institution grade records, and contact information of three references willing to write a recommendation. The application should be submitted to the EPFL Doctoral Program in Physics (EDPY) following the instructions in [6] by the deadline of October 31, 2023. Please indicate Lesya Shchutska under Potential host laboratories and Particle physics under scientist interests. The references should be submitted by the referees by the same deadline following the request they receive.

More information can be obtained from Dr. A. Merli (Andrea.Merli@cern.ch) and Prof. L. Shchutska (Lesya.Shchutska@epfl.ch).

[5] https://www.epfl.ch/about/working/working-at-epfl/employment-conditions