

The Experimental High Energy Physics group at Vilnius University has openings for postdoctoral research associates to work on the CMS experiment at CERN starting on the 1st of January, 2021.

The selected candidates will be expected to play a leading role in the CMS Phase-2 Tracker upgrade, with efforts in Tracker Extended Pixel (TEPX) DAQ and module assembly. This provides a unique opportunity to participate in building a new type of pixel detector (TEPX), where some modules will act as a luminosity telescope. A range of activities, namely simulation, prototyping, assembly, control, and commissioning, are needed in order to build a new kind of a 2-in-1 tracking (sub)detector. The physics analysis of choice is also expected.

Vilnius group has on-going efforts in the top-Higgs analyses, the Z boson precision, and neutrino physics. Past efforts included the Higgs boson discovery and early Higgs precision studies using the EFT methods. On the hardware side, a new tracker lab is being set up for the phase-2 efforts with an additional involvement in online software services, like databases and monitoring. Closely engaged material-science groups are actively involved in CMS MIP Timing Detector (MTD) upgrade (BTL crystals) and future radiation-hard materials via RD18 and RD50 collaborations.

To ensure the full consideration, candidates should apply by December 1st, 2020, but the positions will remain open until filled. The position is initially for 1 year with a renewal possibility based on the mutual agreement and the funding availability. Interested candidates should arrange three recommendation letters, a curriculum vitae, and a brief statement of research to be sent to:

Research Prof. Aurelijus Rinkevicius, e-mail: aurelijus.rinkevicius@ff.vu.lt.

All material should be sent electronically.

Requirements: The candidates should have a Ph.D. in experimental particle physics, some skills in detector online operations, data analysis, computing, and programming are expected.

Placement: candidates should be able to choose between residing in Vilnius, Lithuania, and Geneva, Switzerland, based on the mutual agreement.