

Postdoctoral fellow at Vilnius U.

The Experimental High Energy Physics group at Vilnius University has an opening for postdoctoral research associate to work on the CMS experiment at CERN starting in spring 2024.

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, module testing and assembly. This provides a unique opportunity to participate in building a new type of pixel detectors (TEPX). A range of activities, namely simulation, prototyping, assembly, control, and commissioning are part of the

Phase-2 upgrade needs, where our focus will lay in establishing and integrating a new local facility into a bigger TEPX upgrade chain. 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), future radiation-hard materials via RD18. and RD50 collaborations.

To ensure the full consideration, candidates should apply by the 1st of April, 2024, but the position 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 and hardware, data analysis, computing, and programming are expected. A deeper hardware experience would be an advantage.

Placement: candidates are expected to be stationed in Vilnius, Lithuania, with frequent trips to CERN and other CMS Tracker institutes.