The Institute for Particle Physics and Astrophysics (IPA*) at ETH Zurich invites applications for the position of a

POSTDOCTORAL PHYSICIST

in particle physics to work on the CMS experiment, preparing its operation at CERN's High-Luminosity Large Hadron Collider. The IPA CMS group has a strong involvement in the CMS upgrade projects of the electromagnetic calorimeter (ECAL), the barrel pixel detector (BPIX) and the construction of the barrel part of the Minimum ionizing particle Timing Detector (MTD-BTL). In particular, the work will target the CMS ECAL upgrade project, where the IPA CMS group is responsible for:

- The production and testing of 14'600 readout electronics cards and 2'920 power conversion cards, including environmental stress screening tests and final assembly employing automated tools.
- The production, testing and installation of the low voltage power supplies including power distribution cabling.
- The installation and commissioning of the ECAL detector modules, including the preparation of services and necessary mechanical components.

The successful candidate is expected to have a PhD in Particle Physics and an excellent record of successful work in detector development and construction. Candidates with experience in larger scale collaborations and the construction of large detectors are particularly favored. Further requirements include:

- Experience in hardware development, production, installation and testing.
- Experience in analyzing test and measurement data.
- Very good programming skills in python and C++, particularly in controlling hardware components and the analysis of measurement results. Knowledge in SQL databases is a plus.
- Strong interest in hardware related work, combined with excellent practical skills.

The position requires a well-organized, hard-working person, unifying excellent physics and technical knowledge, excellent communication skills, dedication to the project, critical thinking, precision and pragmatism. In short, the potential for making a significant contribution to our scientific program.

Candidates are required to actively participate in the teaching activities of the department, which includes tutoring of students.

The initial term of the position is three years, with the possibility of extension up to additional two years. The envisaged starting date is June 2025 or as soon as the position can be filled thereafter.
Interested candidates are asked to apply by **21 April 2025, latest,** together with a **letter of motivation**, the **names and addresses of three referees**, a **curriculum vitae,** clearly highlighting their personal contributions to detector development and construction activities and a **list of publications**. The application shall be provided as a zipped archive, named with your name, via a secure (encrypted) channel, (download from cernbox or dropbox or alike). A notification email with the necessary information shall be sent to: Werner.Lustermann@cern.ch.

We may directly talk to the referees and contact them to solicit reference letters. Inquiries concerning the position can be made to Prof. Günther Dissertori (dissertori@phys.ethz.ch) and Dr. Werner Lustermann (Werner.Lustermann@cern.ch).

*Homepage – Institute for Particle Physics and Astrophysics | ETH Zurich