

Job ID: HEPHY128AS123

The Institute of High Energy Physics ([HEPHY](#)) of the Austrian Academy of Sciences ([OeAW](#)), Austria's leading non-university institution for science and research, performs a rich experimental particle physics program and is participating in accelerator- and non-accelerator-based experiments. The institute has major involvements in CMS at CERN, the Belle II experiment at KEK and several Dark Matter detection experiments. An active theory group completes the research profile of the institute. HEPHY is opening a position for an

ACADEMY SCIENTIST (F/M/X)
for Physics Analysis with the CMS experiment
(full-time, 40h per week – tenure Track)

HEPHY is one of the founding members of the CMS Collaboration. We have been strongly involved in the design, construction and operation of two of the major components of the experiment: the trigger system and the tracking detector. Our experience in building silicon detectors, the construction of FPGA based hardware and development of the appropriate firmware allow us to play a leading role within the collaboration. HEPHY is contributing to the high-luminosity upgrade for two major components of CMS: the silicon tracker and the high granularity calorimeter. HEPHY has contributed to CMS physics results since the beginning of LHC operation. HEPHY groups are working on direct searches for supersymmetry and the dark sector, searches using displaced leptons, and on measurements involving the Higgs boson. One of our priorities is the measurement of properties of the top quark, where one focus is on precision measurements of top quark pair. In collaboration with local and international teams focusing on the theoretical description of these processes, we also aim at understanding the implications for physics beyond the standard model.

Main tasks:

- Strengthening of our analysis activities with the CMS experiment in existing direct or indirect searches for signals of phenomena beyond the standard model and the development of new research areas,
- Applications for 3rd party funding,
- Contributions to maintenance and development of the reconstruction and calibration of physics objects,
- And the development of new analysis strategies suitable for the upgraded CMS detector.

Requirements:

- PhD in the field of experimental particle physics at the time of appointment,
- An excellent research record and experience in performing analyses in a large international collaboration,
- Good communication skills,
- Supervision of students and postdocs,
- And the ability to work well in a team environment

We offer:

- Interesting and diversified activities in a motivated team of physicists who cover a wide range of expertise from detector design and construction to theoretical physics, and being
- member of a large international collaboration, well connected within and beyond the CMS experiment.
- The annual gross salary is € 60.926,60, according to the collective agreement of the Austrian Academy of Sciences
- The position is located in Vienna and opened for a period of three years with the possibility of tenure after evaluation (Senior Academy Scientist)

Please submit your application including a CV, a statement of research interests, and a list of publications via e-mail to hephy-office@oeaw.ac.at, **no later than December 17th, 2023**. Application is possible until the position is filled. Please also arrange for **two letters of recommendation** to be sent to the same address. For further information, please contact **Robert SCHÖFBECK** robert.schoefbeck@oeaw.ac.at.

The Austrian Academy of Sciences (OeAW) pursues a non-discriminatory employment policy and values equal opportunities, as well as diversity. Individuals from underrepresented groups are particularly encouraged to apply.