

Post-doctoral Research Position in Experimental Particle Physics ATLAS Experiment

Applications are invited for a post-doctoral position in the ATLAS group at the Center for Particle Physics of Marseille (CPPM), France. The successful candidate is expected to participate to the developments and commissioning activities needed for the phase-I and phase-II upgrade of the ATLAS Liquid Argon (LAr) calorimeter, to electron and photon reconstruction and identification, and to related physics analyses.

CPPM is involved in several major projects in experimental particle physics, astroparticle, cosmology and interdisciplinary applications. The ATLAS group at CPPM has played a major role in the design and construction of the electromagnetic calorimeter, the pixel detector and the trigger system, and pursues a strong R&D effort for planned future upgrades of the detector, notably for the LAr calorimeter, as well as a key contribution to physics analysis in ATLAS.

The successful candidate is expected to take a leading role in the commissioning of the phase-I upgrade of the LAr calorimeter especially studies related to electron and photon reconstruction and identification for the new digital trigger system and also for the main readout system. Understanding the reconstruction in the LAr calorimeter with the increased pileup will be a major goal. Calibration of the reconstruction and identification performance with data is expected. The candidate will also participate to the operation of the LAr calorimeter during the new Run 3 data taking campaign with frequent travel to CERN. He/she is expected to contribute to Run 3 analyses with electrons and photons in the final state. The candidate should also extend these studies in order to prepare for HL-LHC analyses. These analyses should take advantage of the new energy reconstruction algorithms running of the upgraded backend electronic boards which are being designed at CPPM.

The position is for a fixed term of two years, and is based at Marseille, with frequent trips to Geneva. The starting date for the position is in September 2021. Candidates should have a PhD in experimental particle physics by the date of appointment. Good communication skills are expected.

Candidates are invited to send their complete application package (CV, cover letter and statement of research interests, list of publications) to aad@cern.ch, and to arrange for three letters of recommendation to be sent directly to the same address.

Further inquiries about the CPPM ATLAS group and the position should be addressed to Georges Aad (aad@cern.ch).