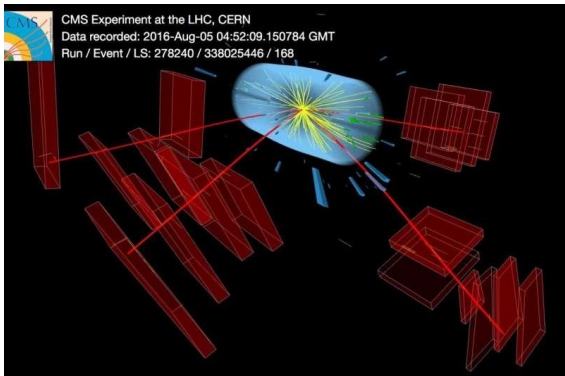


Predocctoral position in Experimental Particle Physics at CIEMAT (Madrid)

Scientific exploitation, data analysis and upgrade of the CMS experiment at the CERN LHC

The CIEMAT-Física de Partículas (CIEMAT-FP) Unit hosts a **predocctoral position for an outstanding young MSc graduate motivated at working in the CIEMAT-FP group collaborating in the CMS experiment at CERN.**



The CIEMAT-Física de Partículas (CIEMAT-FP) Unit is actively engaged in the CMS experiment at the Large Hadron Collider (LHC) at CERN. The participation takes place at several fronts in data analysis and scientific exploitation, software development, and operation of the CMS detector. The LHC is currently taking data in its third working period (2022-2026) and preparing for the coming High Luminosity phase of the collider (HL-LHC). The amount of data collected and the expertise with the detector and analysis techniques are at the base of the predocctoral work to be developed, **performing precision measurements in the Standard Model (SM) scenario and searches for new processes beyond-SM.** Some current areas of interest of the CIEMAT-FP CMS group include the measurement of processes involving vector bosons, searches for new resonances decaying to highly energetic leptons or exhibiting a long lifetime, and the determination of the properties of the Higgs boson. The CMS CIEMAT-FP group is heavily involved in the upgrade of the muon detector readout and trigger. The successful candidate will also contribute to this effort.

We offer a stimulating and excellent international environment, development of innovative work, with expected stays at CERN to carry out research work, presentation and discussion of results, advanced training in the field, and attendance to international conferences.

We seek candidates with a Master's Degree in Physics, an excellent academic record, very good English knowledge and a high motivation towards the scientific field of High Energy Physics at the energy frontier. We also value experience in programming languages such as C++, python and scripting languages.

For any further questions, please contact Begoña de la Cruz (Begona.Delacruz@ciemat.es) and Isabel Josa (Isabel.Josa@ciemat.es).

The CIEMAT Particle Physics Unit is an affirmative action/equal opportunity employer. Eliminating gender inequalities by promoting equal opportunities for men and women is a core compromise of our group and it is our commitment to establish the necessary actions to close the gender gap.