

Predoctoral positions in Experimental Particle and Astroparticle Physics, Observational Cosmology and Instrumentation and Computing R&D at CIEMAT (Madrid)

The CIEMAT-Física de Partículas (CIEMAT-FP) María de Maeztu Excellence Unit announces the upcoming opening of **five predoctoral positions** for outstanding young MSc graduates interested in working in CIEMAT-FP group activities towards a PhD Thesis.

The candidates must have a Master's Degree in Physics at the time of appointment. Main considerations for selection are excellent grades, very good English knowledge and a strong interest in any of the scientific fields of CIEMAT-FP. The experience in modern programming languages such as C++, python and scripting languages will be valued.

The 4-year PhD contracts (Personal Investigador Predoctoral en Formación or Formación de Personal Investigador-FPI) by the Spanish Ministry of Science, Innovation and Universities (3 positions), through the "Programa Estatal de Promoción del Talento y su Empleabilidad en I+D+I" (FPI). Two of these 3 positions are associated to the María de Maeztu Programme for scientific excellence, a distinction awarded to the CIEMAT-FP Unit. In addition, two other positions are funded by CIEMAT. All of them have similar conditions and obligations.

For **María de Maeztu-FPI positions**, the resolution published at <http://www.ciencia.gob.es/portal/site/MICINN/predoc2018> announces the opening of the call from **9th to 29th of October**.

For **CIEMAT positions**, CIEMAT call will be announced at the CIEMAT Job Vacancies webpage <http://www.ciemat.es/portal.do?IDM=254&NM=2> **in the upcoming weeks (by the end of October)**.

They will all be announced at <http://cfp.ciemat.es/predoc> referring to the respective official calls.

The CIEMAT-FP unit activities are focused on the participation in large international experiments at the forefront of knowledge and technology, in the Particle and Astroparticle Physics, Cosmology, detector R&D and Scientific Computing areas. The research lines proceed along hadron collider Physics at the high energy frontier (CMS at LHC collider at CERN), neutrino oscillation Physics (Double Chooz at the Chooz nuclear power plant, WA105 at CERN and DUNE at Fermilab), direct search for Dark Matter (ArDM at LSC and Darkside at LNGS), precise cosmic radiation measurements (AMS at the ISS), very-high energy gamma ray (CTA at ORM) studies and characterization of dark energy (DES at Cerro Tololo and PAU at ORM), and Instrumentation and Computing R&D. Further information on the CIEMAT-FP scientific programme can be found at <http://cfp.ciemat.es/>.

The titles for the 5 positions are the following:

María de Maeztu - FPI positions

- Physics beyond the Standard Model with the CMS experiment at the CERN LHC (Física más allá del Modelo Estándar en el experimento CMS en el LHC del CERN)
- Commissioning and exploitation of first telescopes of CTA project (Preparación y explotación de los primeros telescopios de CTA)
- Study of the properties of dark energy and measurement of cosmological parameters (Estudio de las propiedades de la energía oscura y medida de parámetros cosmológicos)

CIEMAT positions

- Search for new physics in precision studies with the CMS experiment at the LHC (Búsqueda de nueva física en estudios de precisión con el experimento CMS del LHC)
- Direct dark matter search with liquid argon detectors (Búsqueda directa de materia oscura mediante detectores de argón líquido)

For more information or any question, please contact MdM.CFP@ciemat.es

The CIEMAT Particle Physics Unit of Excellence 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.