

PhD position in Cosmology at CIEMAT: “Study of the properties of dark energy and measurement of cosmological parameters”

The CIEMAT–FP Unit (Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas) announces the upcoming opening of a predoctoral position for outstanding young MSc graduates interested in working in observational cosmology with the goal of obtaining a PhD Thesis.

The 4-year PhD contract (Personal Investigador Predoctoral en Formación or Formación de Personal Investigador-FPI) is funded by the Spanish Ministry of Science, Innovation and Universities through the “Programa Estatal de Promoción del Talento y su Empleabilidad en I+D+I” (FPI). This position is associated to the María de Maeztu Program for scientific excellence, a distinction awarded to the CIEMAT-FP Unit, reference number **MDM-2015-0509-18-1 “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”**. The official call is available <http://www.ciencia.gob.es/portal/site/MICINN/predoc2018>, the deadline for applications being **October 29th**.

The candidate must have a Master's Degree in Physics (following the Bologna Declaration) or alternatively be registered or admitted in a doctoral program at a university department on a related subject, at the time of signing the contract (see details in the official call). Main considerations for selection are excellent grades, very good command of written and spoken English and a strong training in cosmology. Experience in modern programming languages such as Python, C and/or scripting languages will be valued. A background in astrophysics and/or fundamental physics is desirable as well.

CIEMAT–FP currently participates in two ongoing galaxy surveys, with the goal of pinning down the nature of dark energy: the Dark Energy Survey (www.darkenergysurvey.org) and the PAU Survey (www.pausurvey.org) using cameras built in part by us at 4-m telescopes in Chile and the Canary Islands. In addition, we also participate in the upcoming DESI survey (www.desi.lbl.gov). The PhD student will be expected to work with the huge datasets of these projects performing statistical analyses of the characteristics of the detected objects, in order to understand the large scale structure of the Universe revealed by them. We also encourage new ideas and directions that our students may want to pursue.

We offer close supervision and a stimulating international environment with expected research stays in the United States and other partner institutions, as well as presentation of results at meetings and conferences as well as observation shifts.

For any question related to this position, please contact:

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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.