

PhD position in Direct Dark Matter Search with Liquid Argon Detectors at CIEMAT

The Dark Matter research group of the CIEMAT-FP Unit (*Centre for Research in Energy, Environment and Technology* in Madrid, Spain) announces the upcoming opening of a predoctoral position for outstanding young Msc graduates interested in working in direct Dark Matter search activities towards a PhD Thesis.

The 4-year PhD contract (*Formación de Personal Investigador-FPI*) is funded by the Spanish Ministry of Economy and Competitiveness through the “*Programa Estatal de Promoción del Talento y su Empleabilidad en I+D+I*”. This position is associated to the *María de Maeztu Program for Scientific Excellence*, a distinction awarded to the CIEMAT-FP Unit. The official call will be published at the Boletín Oficial del Estado (BOE) around September 2017, and will all be announced in the web page <http://cfp.ciemat.es/predoc> and in social networks.

The candidate must have a Masters Degree in Physics (following the Bologna Declaration) or a 5-year Physics Degree (“Licenciatura”). Main considerations for selection are excellent grades, very good knowledge of the English language, and strong interest in data analysis and hardware development for experimental particle physics. The experience in modern programming languages such as C++ and scripting languages will be valued.

The CIEMAT-FP Dark Matter group participates in the ArDM experiment in the Canfranc Underground Laboratory (LSC), and in the DarkSide-20k experiment to be installed in the Gran Sasso National Laboratory (LNGS). ArDM will start dual-phase operation later this year (run II). DarkSide-20k is a 20 tonne liquid argon time projection chamber (LAr TPC), is currently in design and prototyping phase, and construction will start soon. Operation is expected to start in 2021. The PhD student is expected to work in the analysis of ARDM data (run II), as well as in the development of innovative hardware, detector simulation and analysis software for current and future LAr detectors.

We offer close supervision within a very active research group, working in an international environment. The selected student is expected to spend part of his/her time in the LSC, in the LNGS, and in other collaborating institutes worldwide.

For any question, please contact darkmatter@ciemat.es.

Madrid, September 2017

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.