Position Offered: POSTDOCTORAL RESEARCHER

Project: *Leveraging digital talent to boost IFCA synergies*

Technological and scientific fields: Astrophysics and space sciences; advanced scientific instrumentation; Micro/nano technology

Location: Santander, Cantabria, Institute of Physics of Cantabria (IFCA) https://ifca.unican.es/en-us

Research Group/PI: Observational Cosmology and Instrumentation, Enrique Martínez González, https://ifca.unican.es/es-es/investigacion/cosmologia-observacional-e-instrumentacion

PROJECT SUMMARY

As a complement to the specific research activity of the different IFCA groups, the centre has defined two research synergies that are transversal to the Institute's groups: artificial intelligence and machine learning, and the study of dark matter. In addition, the IFCA also promotes instrumental development, which is inherent to all the Institute's Departments. The main R&D objective of this project is to strengthen the synergistic research line in the study of dark matter.

PROFESSIONAL PROFILE

Minimum requirements:

The essential requirements are:

- PhD degree in Physical Sciences
- Fluency in Spanish and English

Merits to be considered:

The following knowledge and experience would be an asset:

- Knowledge of space astrofisycs
- Experience in magnetic field shielding studies
- Experience in analysing sky scanning strategies for calibration of experiments with point source references

WHAT IS OFFERED

The person recruited will be part of the cross-cutting research synergy in the study of dark matter. The scientific-technological activities to be carried out will be related to instrumental development in astrophysics and particle physics and associated digital aspects. In particular, he/she will participate with the cosmology and particle physics groups in the assembly, maintenance and operation of the dilution refrigerator recently acquired by the IFCA, which will be used to characterise superconducting sensors for different experiments. He/she will also collaborate in the development of the Temperature Monitoring and Control System for the JAXA LiteBIRD telescopes, in the development of a calibration satellite for microwave experiments, and in the development of an active temperature control system for the IR sensors of the ESA ARRAKIHS mission led by IFCA. The person hired will benefit from a solid training provided through specialised courses and stays in research centres and companies with which we collaborate.

Contract conditions:

Indefinite contract for a Postdoctoral Researcher associated to the Momentum Project of 4 years' duration according to Spanish science law. Gross annual salary (41.000 € - 52.000 €).

Start of contract: before 31 December 2024

PRINCIPAL INVESTIGATOR CONTACT

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