

## **Postdoctoral Research Position in Particle Physics and Instrumentation**

**Instituto de Física de Cantabria**

**Application Deadline:** Open until position is filled

**Contract Start Date:** Targeted for December 2023, with a duration of 3 years

The Particle Physics and Instrumentation Group at the Instituto de Física de Cantabria is seeking applications for a postdoctoral position. Our group specializes in the development of highly sensitive instruments with exceptional background rejection capabilities for dark matter experiments. We are currently at the forefront of research involving low-threshold, single-quanta skipper CCDs, aimed at directly detecting dark matter. Our primary focus is on the DAMIC-M project, which will either make the first observation of light dark matter-electron scattering or establish world-leading limits in the sub-GeV mass range. In addition, we are actively engaged in sensor research and development for the OSCURA experiment, set to be constructed in 2028 at SNOLAB, with the goal of achieving lower background levels.

The successful candidate will primarily contribute to the DAMIC-M project. At IFCA, in collaboration with DAMIC-M, we have expressed interest in expanding our presence at the Laboratorio Subterráneo de Canfranc, with the establishment of a CCDs test stand for impurity analysis. The candidate is expected to play a pivotal role in this endeavour, assuming a leadership position in this area including all aspects from hardware to analysis. Additionally, the candidate will have responsibilities spanning simulations, data management (including Data Quality Monitoring or DQM), and physics analyses. They will also participate in the underground detector construction.

This postdoctoral position offers an exciting opportunity to engage in groundbreaking research in the field of dark matter detection and instrumentation. If you are enthusiastic about contributing to both hardware development and data analysis, we encourage you to apply.

The gross annual salary would be 39133,63€ divided in 14 payments.

IFCA is committed to promoting diversity and inclusion in all our academic initiatives. We believe that diversity enriches our community and enhances our learning opportunities. We welcome applications from women, persons with disabilities and any member of minority groups. IFCA does not discriminate in employment on the basis of race, ethnicity, color, religion, age, sex, gender identity or expression, sexual orientation, military/veteran status, country of birth, geography/postal code, disability, marital status, parental or gestational status, or other non-merit factor.

To apply, please send your CV and a letter of interest, and arrange for 3 letters of recommendation to be sent directly to:

[Rocio Vilar Cortabitarte](#), (IP of the DAMIC-M group at IFCA and co-IP of the project)

[Bradley Kavanagh](#), (Co-IP of the project)

Please include the text “IFCA PPI Postdoc Application - NAME” (where NAME is your name) in the subject line of the emails.