

Postdoctoral position at IFCA for the RadioForegroundsPlus project

The *Observational Cosmology and Instrumentation Group* of the Instituto de Física de Cantabria (IFCA; Santander, Spain) offers one postdoctoral position to work on the RadioForegroundsPlus project of the Horizon Europe Program (Grant Agreement number 101135036). All the relevant information about the project (including other job opportunities) can be found at:

<https://research.iac.es/proyecto/radioforegroundsplus/>

The aim of the project is to provide the best possible characterization of the physical properties of polarized emissions in the microwave domain, together with an unprecedentedly thorough description of the intensity signal. This legacy information will be essential for future sub-orbital or satellite experiments targeting the B-Mode of Cosmic Microwave Anisotropies for the measurement of background of primordial gravitational waves. The project is coordinated by IFCA-CSIC and it also includes IAC (Spain), SISSA (Italy), CNRS (France), Univ. of Oxford (UK) and Univ. of Manchester (UK). Postdoc positions are expected to be available at all nodes.

The successful candidate is expected to work in the development and application of advanced tools for component separation with the aim to provide foreground maps and catalogues of point sources from low frequency surveys (QUIJOTE, C-BASS, S-PASS) in conjunction with Planck, WMAP and other ancillary data. Experience on component separation (using e.g. parametric methods, linear techniques or machine learning) is particularly desirable. The candidate will closely work with other members of the group and, in particular, with Dr. Belén Barreiro and Dr. Mathieu Remazeilles. Collaboration with researchers from other nodes of the project is also expected.

The start date is negotiable between March and June, but an early start date is preferred. The position will be funded up to 31st December 2026, regardless of the start date (extensions may be possible subject to the availability of other funds). In accordance with CSIC regulations, the gross annual salary will be in the range 40.900 – 45.791 € depending on the candidate's experience. Additional funds will also be available for travelling and research stays. Review of applications will start on January 31st and will continue until a suitable candidate is found.

The Instituto de Física de Cantabria (IFCA) is a leading research and training institution that provides a friendly and international environment. IFCA is located in Santander, a medium-size city on the northern coast of Spain, surrounded by natural landscapes. IFCA members carry out cutting-edge research in topics such as cosmology and astrophysics, structure of matter or computation and data science, being involved in numerous international experiments. In particular, the Observational Cosmology and Instrumentation group is strongly involved in CMB collaborations such as LiteBIRD, QUIJOTE or ELFS.

Applications should be sent to radioforegroundsplus@ifca.unican.es including a CV, a description of relevant experience and research interests (2 pages) and arrange for up to three letters of recommendation to be sent directly by the reviewers to the above e-mail address.

CSIC is an equal opportunity employer, that offers an inclusive environment for all. We welcome all applicants regardless of gender, age, disability, sexual orientation, marital status, maternity/paternity, nationality, religion or belief. Selection will be based solely on individual merit.



RadioForegroundsPlus has received funding from the European Union's HORIZON-CL4-2023-SPACE-01 programme under grant agreement number 101135036.