



Doctoral INPhINIT *Retaining* 'La Caixa' Fellowships in Experimental Particle Physics at IFAE Barcelona

The High Energy Physics Institute in Barcelona (IFAE-Barcelona) is offering PhD positions for talented Early-Stage Researchers within the framework of the Doctoral INPhINIT *Retaining* “la Caixa” fellowships, in the fields of Particle Physics, Astroparticles, Cosmology, Gravitational Waves, Quantum Computing and Instrumentation R&D. In particular, in the context of Experimental Particle Physics, IFAE is offering the following project:

“Searches for new phenomena with the ATLAS detector at the LHC”

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IFAE maintains a strong presence in the ATLAS experiment at CERN’s Large Hadron Collider (LHC), with major responsibilities on the calibration and maintenance of the TileCal hadronic calorimeter and the Level-1 Topological Trigger system, and participates in the Pixel detector upgrade. The IFAE-ATLAS group has developed an exciting and broad research program that includes precision measurements of the top quark and the Higgs boson, and searches for new phenomena beyond the Standard Model (e.g., dark matter, supersymmetry, vector-like quarks, leptoquarks, additional light or heavy Higgs bosons, etc).

The successful PhD candidate will join the IFAE-ATLAS group and will participate in first-class research with the ATLAS detector. He/she will play a leading role in physics analysis using the full Run 2 and Run 3 datasets, and participate in the maintenance and operation of the ATLAS detector. A significant fraction of this research can be carried out at CERN, in collaboration with other PhD students and postdoctoral researchers.

These are 3-year PhD positions. On top of a competitive salary, the position offers a dedicated budget for short scientific visits to other research centres. In addition, the IFAE offers additional funds to attend schools or international workshops related to the PhD research topics.

Requirements:

In order to be accepted, candidates must meet the following eligibility requirements:

Nationality:

Young researchers of **any nationality** are eligible to apply for the Doctoral INPhINIT Fellowships – Retaining Programme.

Studies pursued:

Applicants must hold a higher education degree that makes them eligible to enrol in a doctoral programme before starting at their host institutions. The host university will verify, upon starting the admission process to the doctoral programme, that the studies taken up by the selected candidates make them eligible to enrol in an official doctoral

programme in accordance with the regulations in force in Spain. Should they be found not eligible after verification, the fellowship will be withdrawn.

Under no circumstances may candidates have previously enrolled in the same doctoral studies for which they are applying for the fellowship.

Language proficiency:

Applicants must accredit their proficiency in the English language by submitting any of the certificates mentioned below. **Under no circumstances will any other certificate be accepted**, despite being issued by the same organisations and/or accredit equivalence with any of the accepted levels.

- **TOEFL**: minimum score of 83 for the Internet-based test.
- **University of Cambridge**: minimum score of 176 in the First Certificate in English (grade A or B), Certificate in Advanced English, Certificate of Proficiency in English or the Linguaskill online test.
- **IELTS**: minimum score of 6.5 in the Academic or General Training version.
- **Duolingo English Test**: minimum score of 105.
- **School of Modern Languages (EIM) of the University of Barcelona**: B2 level or higher, either taking the online English accreditation test (PAI online) or other exam formats. *
- **Official Language Schools (EOI) in Spain**: Certificate of B2 level or higher. *

* B2.1 certificates will not be accepted since they accredit a lower level than B2.

Research experience:

On the deadline for applications, applicants must still be within the **first four years** (full-time equivalent research experience) of **their research careers**. **They must also not have any previous doctoral degree**, and not be in a position to apply for it.

Mobility:

Candidates must have resided or carried out their main activity (work, studies, etc.) in Spain for more than twelve months in the three years immediately prior to the deadline for applications.

Short stays, such as holidays, spent in a country other than their country of usual residence (where they carried out their main activity), will be considered as time spent in their country of usual residence.

Candidates who are awarded a fellowship **must enrol in a doctoral programme at a university that is different from where they took up their bachelor's studies.**

Complete applications: Only candidates whose applications meet all the requirements of the call may be accepted.

Key dates:

February 16th, 2023, at 2 pm Peninsular Spain:

Deadline for submitting applications.



**Institut de Física
d'Altes Energies**



May 19th, 2023:

Communication of the shortlist results and arrangement of interviews.

June 14th, 15th, and 16th, 2023:

Face-to-face interviews.

June 29th, 2023:

Communication of the final results.

Access to the applications platform of “la Caixa” Foundation fellowships programme:

<https://candidate-fellowships.lacaixafoundation.org/login>

More information at:

<https://fundacionlacaixa.org/en/inphinit-doctoral-fellowships-retaining>

For any questions, please visit the INPhINIT webpage above and/or contact the IFAE's Projects Office (projects@ifae.es).