



## 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).

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 will 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 centers. 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:

### **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.

### **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.**

**Geographic mobility:**

Candidates who wish to join a Spanish host institution **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.

**Level of English:**

Candidates must have a demonstrable level of English (**B2 or higher**).

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

Applications should be completed online at: <https://fundacionlacaixa.org/en/inphinit-doctoral-fellowships-retaining>

The application deadline is **February 16, 2022**.

For any questions, please visit the INPhINIT webpage above or contact the IFAE's Projects Office: Marta Balza ([mbalza@ifae.es](mailto:mbalza@ifae.es)) and Sara Martínez ([smartinez@ifae.es](mailto:smartinez@ifae.es)).

IFAE and La Caixa Foundation are equal opportunity employers committed to diversity in the workplace, and we welcome applications from all qualified candidates. General information about IFAE is available at <http://www.ifae.es>. Sending CVs to us implies consent to the legal warning at the bottom of IFAE's Home Page.