

Predocctoral Position in Hadron Collider Physics at the LHC with the ATLAS Detector (IFAE-Barcelona)

The High Energy Physics Institute in Barcelona (IFAE-Barcelona) announces the opening of a Predocctoral Position to participate in its hadron collider experimental program using the ATLAS detector at the LHC. IFAE is one of the top research centers in Spain conducting experimental and theoretical research at the frontier of fundamental physics, as well as developing cutting-edge detector technology. In 2012 and 2016, IFAE was awarded the distinction of “Severo Ochoa” Centre of Excellence by the Spanish Ministry of Economy and Competitiveness.

General information about IFAE is available at <http://www.ifae.es>.

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 (e.g., four-top-quark production) and the Higgs boson (e.g., top-Higgs Yukawa coupling), and searches for new phenomena beyond the Standard Model (e.g., supersymmetry, vector-like fermions, 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. They 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, as well as in the preparation of the detector for the High-Luminosity LHC.

Interested candidates with an excellent CV, a demonstrable English level, a pro-active attitude and good communications skills, are encouraged to apply.

IFAE is an equal opportunity employer committed to diversity in the workplace, and we welcome applications from all qualified candidates. Women are particularly encouraged to apply.

Applications should be submitted to Dr. Tamara Vázquez Schröder (tvazquez@ifae.es) and rrhh@ifae.es stating the job reference (IFAE2024/49_ATLAS_PHDstudent) as the subject of the message **by December 15, 2024**.

The mail should include their updated CV, including a full list of University grades, and arrange to have two letters of reference. Sending CVs to the above addresses implies consent to the [IFAE's legal warning on data privacy](#). The application must contain a personal identification number (DNI, NIE or passport) in order to proceed to the verification of absence of conflict of interest required by Recovery and Resilience Mechanism of the Spanish Government.

For more information on the proposed research projects, eligibility criteria, and the overall application process, please contact Dr. Tamara Vázquez Schröder (tvazquez@ifae.es).