

# Ph.D. position in searches for New Physics in the ATLAS experiment at LHC

The IFIC-Valencia ATLAS group invites applications for a PhD student position in experimental particle physics.

IFIC (Instituto de Física Corpuscular) is a joint centre of the Spanish Research Council (CSIC) and the University of Valencia (UV), devoted to research in Particle, Astroparticle and Nuclear Physics. More information about IFIC can be found at: <http://ific.uv.es>.

The ATLAS research group at IFIC has greatly contributed to the construction of the hadronic Tile Calorimeter (TileCal) and Semiconductor Tracker (SCT), and it is very active in the upgrade of the TileCal electronics and the construction of the new inner tracker (ITk) for the Phase-II upgrade towards the High-Luminosity LHC (HL-LHC). The group is strongly involved also in the trigger and in several physics analyses on topics such as searches for Exotic Physics and SUSY, or Higgs boson and top-quark measurements.

## **Job description:**

We offer a PhD position for a maximum of 4 years to join the IFIC-Valencia ATLAS group towards a PhD in searches for Exotic Physics.

The successful candidate will become a member of the ATLAS collaboration, work on a search for physics beyond the Standard Model at the LHC and get involved in activities related to the trigger and data acquisition system. The candidate will also participate in data taking activities during Run 3. During the research, the candidate will learn and perform sophisticated data analysis (machine learning, statistical tools, fits for new physics interpretations). Temporary stays at CERN or at other research centres or universities would be possible.

## **Requirements:**

Applicants must hold a Master degree (or equivalent) in Physics. They are expected to have a strong commitment to research in particle physics and data analysis, be capable of personal initiative and be willing to be involved in one of the largest scientific experiments in the world. Good teamwork, communication and presentation skills as well as software skills (C++, Python, ROOT) are desirable.

## **Application:**

Applications and further inquiries should be addressed to Dr. Emma Torró (Emma.Torro.Pastor@cern.ch).

Interested candidates are requested to send a motivation letter, CV, academic transcripts and coordinates of two contacts willing to provide a letter of recommendation. The successful candidate is expected to start in Spring 2020, therefore the review process will start immediately and continue until the position is filled.