



CSIC

CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS



VNIVERSITAT
ID VALÈNCIA

PhD Position in the ATLAS Experiment at IFIC Valencia

The Instituto de Física Corpuscular (IFIC) is a joint center of the Spanish National Research Council (CSIC) and the University of Valencia (UV), devoted to particle, astroparticle and nuclear research, covering both the theoretical and experimental aspects of these fields.

More information about IFIC can be found at <http://ific.uv.es/>

The ATLAS group at IFIC offers a PhD position within the ATLAS experiment at the LHC. The group is strongly involved in the operation and Phase-II upgrade of the detector for the High Luminosity LHC, in particular for the Inner Detector, Tile Calorimeter and Trigger systems. The group has expertise in the modelling of physics processes using Monte-Carlo event generators, tracking, electron, photon and tau reconstruction and identification, and is deeply involved in top quark and Higgs boson physics contributing to precise measurements of their properties as well as to direct searches for new phenomena. The successful candidate is expected to play an important role in new measurements involving top quarks and/or Higgs bosons to probe their couplings, quantum entanglement or CP properties as well as performance related activities. The study of those two particles is one of the main focus of the experiments at the LHC since the Higgs boson is the particle that gives mass to all fundamental particles and the top quark is the heaviest elementary particle (even heavier than the Higgs boson itself). The PhD candidate will use and explore cutting-edge technologies like big data analytics and artificial intelligence.

Applicants must hold a University degree giving access to PhD studies (that is a Master Degree) by the time of enrollment in the PhD program. Candidates are expected to have personal initiative and strong interest in the analysis of particle physics data and be willing to be involved in one of the largest scientific collaborations in the world. The position will be based in Valencia, with some research stays at CERN (one of the world's largest and most respected centers for scientific research) to contribute to Run 3 data taking activities during the duration of the PhD.

Further information about the position can be obtained from Dr. Carmen García (carmen.garcia@ific.uv.es) and Dr. Susana Cabrera Urbán (susana.cabrera@ific.uv.es).

Applicants should send a curriculum vitae, a motivation letter, a brief description of research interests and arrange for two letters of recommendation to Dr. Carmen García and Dr. Susana Cabrera Urbán.

Applications received by November 15th 2023 will receive full consideration.