

Post-doctoral Positions in the ATLAS/future collider group at IFIC Valencia

Opening Date: **August 1st, 2022**

Closing Date: **October 1st, 2022**

The IFIC ATLAS/future collider group

The AITANA group at IFIC (UV/CSIC) in Valencia is active in the ATLAS and MoEDAL experiments at the CERN Large Hadron Collider, in the development of accelerator and detector technology for a future electron-positron Higgs factory and the LUXE experiments and in axion searches with RADES. The ATLAS analyses focus on searches for new physics and top quark precision measurements. The group is deeply involved in prospect studies for future colliders in the same areas. Detector R&D on highly granular calorimetry is performed within the CALICE collaboration and integrated pixel sensors are being developed within the AIDAInnova project. Accelerator R&D aims at the development of high-gradient RF cavities and beam instrumentation, both within the ILC and CLIC projects and for medical applications.

More information about the group is available on the webpage: <https://aitanatop.ific.uv.es/aitanatop/>

Learning environment

Our interdisciplinary group offers excellent opportunities for post-doctoral researchers to take the next steps in their careers. The group has access to data from two LHC experiments and has a broad research programme, ranging from technological developments to phenomenological studies. The group is internationally recognized and has excellent ties to the theory department at IFIC and theory groups elsewhere. The group has collaboration agreements with the main particle physics laboratories in Europe and Japan and funding for secondments at CERN, DESY and KEK is available.

Open positions

The group has one or more open post-doctoral positions. The successful candidate(s) will participate in one of the main research lines of the group:

- Top physics at the Large Hadron Collider and Beyond
- New physics searches at the LHC and a future Higgs factory
- Development of ultra-granular calorimetry with CALICE and dark matter
- Development of advanced accelerator technology

The concrete research objectives within each of these lines will be agreed with the candidate. The selected candidates will be based in Valencia. Extended stays in one of the major labs are possible and encouraged.

Funding and pay

The group is funded under the Spanish national programme for particle physics, under several European projects (AIDAInnova, EAJADE, CompactLight), and has a substantial PROMETEO grant from the Valencian regional government. The appointments will be made through the Spanish Research Council CSIC and extend up to four years. The gross salary is approximately 38.000 euro/year, including social security and health insurance. The net salary of 29.000 euros/year allows for a comfortable living standard in the region.

Requirements

A doctorate in experimental particle physics is required to be considered for this position. We are looking for ambitious candidates, interested in developing his/her research together with the Ph.D. students and staff members of the group. Experience in the main experimental techniques is expected, but candidates are encouraged to explore new directions beyond their immediate background. The candidate needs to possess excellent English communication skills, while Spanish or Valencian are appreciated, but not required.

Applications

Interested candidates should send their **up-to-date CV**, including a summary of their Ph.D. research and subsequent research experience and should arrange for up to **three letters of reference**. Inquiries about the top physics can be directed to Dr. Marcel Vos (marcel.vos@ific.uv.es), about the new physics searches to dr. Vasiliki Mitsou (vasiliki.mitsou@ific.uv.es), about the accelerator R&D activities to Dr. Daniel Esperante (daniel.esperante@ific.uv.es), about CALICE and LUXE to Adrian Irlles (adrian.irlles@ific.uv.es) and about axion searches and dark matter to prof. Benito Gimeno (benito.gimeno@uv.es). Selected candidates will be contacted for a (online) follow up interview.