

Neutrino properties and search for dark matter in the KM3NeT and ANTARES neutrino detectors

IFIC (UV-CSIC), Valencia, Spain, Europe
Hep-ex, postdoc, KM3NeT/ANTARES

Deadline: Sep 30, 2020

Job description:

We invite applications for a post-doctoral position in the Experimental Astroparticle and Neutrino Physics Group of IFIC - Instituto de Física Corpuscular (University of Valencia and CSIC), Valencia, Spain.

The successful candidate will work within the KM3NeT and ANTARES collaborations. The contract is for a period of 2 years with a possible extension of an additional year. The gross annual salary is 37 K€. The candidate will be based at IFIC, Valencia, but travels to other laboratories of the KM3NeT collaboration, attendance to collaboration meetings and participation to shifts are foreseen.

The candidate must hold a PhD in Experimental Particle Physics. She/he should have excellent analysis and software skills (Python, ROOT, C++), teamwork abilities and be fluent in English. Experience in data analysis in a neutrino experiment is appreciated but not mandatory.

The candidate will participate in the analysis of the KM3NeT and ANTARES data. She/he will contribute to the data taking and help in the construction and calibration of both the ORCA and ARCA KM3NeT detectors. The main research topic of the candidate will be the study of neutrino properties using the atmospheric neutrino data recorded by the ORCA and ANTARES detectors, with special attention to the search for new physics, such as neutrino non-standard interactions, neutrino decays, sterile neutrinos and other beyond the Standard Model phenomena. The group is also involved in the search for dark matter through WIMP annihilation in massive astrophysical objects via high-energy neutrino detection in the ANTARES, ARCA and ORCA detectors. A partial participation of the candidate in this subject can also be considered.

Interested physicists are invited to submit their application, including a cover motivation letter, curriculum vitae, list of publications and copies of university degrees. They should also arrange for three letters of recommendation. All documents should be sent to Juan José Hernández (juanjo@ific.uv.es). The review of applications will start in September 2020 and will continue until the position is filled.

IFIC is an equal opportunity employer committed to diversity in the workplace and fair employment practices. Its parent organizations (UV and CSIC) have endorsed the European Charter for Researchers and the European Code of Conduct for the Recruitment of Researchers and follow the Human Resources Strategy for Researchers (HRS4R) for its proper implementation and follow-up. UV has obtained the HR Excellence in Research Award from the European Commission.