

Job ID: HEPHY115PD221

The Experimental Particle Physics group, a joint working group of the Institute of Atomic and Subatomic Physics at the Technische Universität Wien and the Institute of High Energy Physics (HEPHY) of the Austrian Academy of Sciences (OeAW), is a member of the experiments NUCLEUS, searching for coherent elastic neutrino-nucleus scattering, and COSINUS and CRESST, both searching directly for Dark Matter. The focus of the group is on simulation, data analysis and the development of a new data acquisition system. The group is a member of the Sonderforschungsbereich “Neutrinos and Dark Matter in Astro- and Particle Physics” (<https://www.sfb1258.de>). In this context, HEPHY is offering a

POSTDOC POSITION (F*M)

(full-time, 40h per week)

working on simulations for the CRESST Experiment within the Sonderforschungsbereich 1258.

The successful candidate will investigate as part of CRESST’s simulation team the various background components observed with the CRESST experiment. The identification of the individual background sources requires an accurate simulation of the full experimental set-up, considering both intrinsic and ambient contributions. As CRESST is one of the world leading experiments searching for low mass Dark Matter, special attention has to be given to a precise modelling of the detector response at the sub-keV energy regime.

The candidate will work closely with CRESST’s material assay and data analysis teams to normalize the simulation to measured contamination levels and to validate the background model against calibration measurements. The outcome of the simulations will be also valuable feedback to the detector development of CRESST and the analysis of the data taken with the experiment.

Contributions to the ongoing operation of the CRESST experiment at the Laboratori Nazionali del Gran Sasso (LNGS) in Italy are expected.

The candidate is expected to have a PhD in experimental particle physics and a solid background in astroparticle physics. Solid programming skills in C++ are mandatory and additional expertise with the Geant4 simulation framework and data analysis with ROOT is of advantage.

We offer a full-time postdoc position for a duration of four years including an annual gross salary of € 55.242,60 according to the salary scheme of the Austrian Science Fund (FWF)

More information about HEPHY may be found at <http://www.hephy.at>.

Please send your applications including two letters of recommendation via email to hephy-office@oeaw.ac.at, mentioning Job ID: HEPHY115PD221, **no later than October 31, 2021**.

For further information, please contact Prof. Jochen Schieck Jochen.Schieck@oeaw.ac.at.

The Austrian Academy of Sciences (OeAW) pursues a non-discriminatory employment policy and values equal opportunities, as well as diversity. The OeAW lays special emphasis on increasing the number of women in senior and in academic positions. Given equal qualifications, preference will be given to female applicants.