



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, is a member of the experiments NUCLEUS, searching for coherent elastic neutrino-nucleus scattering, and COSINUS and CRESST, both searching directly for Dark Matter. In all three experiments, the group is in charge of the data acquisition development and of the background simulation.

We are looking for postdoctoral fellow working on the background simulation of the CRESST experiment.

The candidate should have a PhD in experimental particle physics and a solid background in astroparticle physics. Expertise in Monte Carlo simulation techniques using the Geant4 code and solid programming skills in C++ are mandatory. Additional expertise in data analysis with ROOT is of advantage.

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 a valuable feedback to the detector development of CRESST.

The candidate can also contribute to the simulation efforts of the COSINUS and the NUCLEUS experiments, which have similar requirements like CRESST. Contributions to the ongoing operation und planned upgrade of the CRESST experiment at the Laboratori Nazionali del Gran Sasso (LNGS) in Italy are expected.

The position will be opened for a period of six years. Contributions to teaching at the Technische Universität Wien are expected.

The Technische Universität Wien is committed to increase female employment in leading scientist positions. Qualified female applicants are encouraged to apply and will be given preference if equally qualified. Handicapped persons with appropriate qualifications are also expressly encouraged to apply.

For this position, a minimum salary of € 3.889,50 gross per month (fourteen times a year) with a full-time employment of 40 hours per week is offered.

More information about HEPHY and the Institute of Atomic and Subatomic Physics may be found at <http://www.hephy.at> and at: <http://ati.tuwien.ac.at>, respectively.

For further Information please contact Prof. Jochen Schieck (Jochen.Schieck@tuwien.ac.at) or Dr. Holger Kluck (Holger.Kluck@tuwien.ac.at).

Please arrange for two letters of recommendation and send your application to:

Technische Universität Wien
Personaladministration
Fachbereich wissenschaftliches Personal
Karlsplatz 13
1040 Vienna
Austria

or by email to: ildiko.haidenschuster@tuwien.ac.at

The closing date for the submission of applications is February 27th, 2020.