Postdoctoral Position for Direct Dark Matter Detection

The Institute of High Energy Physics of the Austrian Academy of Sciences in Vienna, Austria, performs a rich experimental particle physics program participating in accelerator and non-accelerator based experiments. The institute has a major involvement in CMS at CERN, in the Belle / Belle II experiment at KEK and in the CRESST Experiment at LNGS, Italy. A theory group completes the research profile of the institute.

We are looking for a postdoctoral researcher working on simulations for future direct dark matter search experiments using cryogenic detectors.

Competitive direct search for dark matter particles in the mass range below 1 GeV requires an extensive and reliable knowledge of background sources both external to the detector as well as intrinsic contaminations of the detector materials. The successful candidate will validate the reliability of an existing Geant4 application against data from the current CRESST data taking campaign. Furthermore, the Monte Carlo simulation will be adapted to investigate the expected background components for future cryogenic detectors. To obtain the needed activity levels of support materials a dedicated radiopurity screening may be conducted. The research program will be performed within the collaborative research centre “Neutrinos and Dark Matter in Astro- and Particle Physics” (SFB1258) of the German Research Foundation DFG.

The candidate should have a PhD in experimental particle physics and a solid background in Monte Carlo simulations. Expertise in dark matter detection techniques, astro particle physics and C++ programming will be an advantage.

The Academy of Sciences 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 salary of € 3.590,70 gross per month (fourteen times a year) based on full-time employment is offered. The position will be opened for a period of four years and located in Vienna.

More information about the Institute of High Energy Physics of the Austrian Academy of Sciences may be found at [http://www.hephy.at](http://www.hephy.at).

For further Information please contact Prof. Jochen Schieck (Jochen.Schieck@oeaw.ac.at).

Please arrange for two letters of recommendation and send your application, including a CV and a list of publication, by email to Eveline.Ess@oeaw.ac.at. The deadline is March 31st, 2017, but applications will be considered beyond this date until the position is filled.