POSTDOCTORAL RESEARCH ASSOCIATE IN SUBATOMIC PHYSICS

The University of Manitoba's Particle and Nuclear Physics Group has an immediate opening for a Postdoctoral Research Associate. The group's research is focused on experimental studies of fundamental symmetries. The program includes searches for physics beyond the Standard Model via parity violating electron scattering -- the Qweak, PREX/CREX and MOLLER experiments at Jefferson Laboratory (JLab) in Newport News, VA, USA. Additionally, QCD tests are pursued via studies of parity violation in hadronic systems using low energy neutron beams at the Spallation Neutron Source (SNS) in Oak Ridge, TN, USA – the NPDGamma and n3He experiments, as well as beta-decay experiments with cold neutrons at the SNS. The group also participates in preparations for a neutron EDM search with ultra-cold neutrons, to be carried out at TRIUMF.

The successful candidate is expected to focus on and contribute in a significant manner to the parity violation experimental program at Jefferson Laboratory. This includes running simulations, carrying out calculations, DAQ setup, and data analysis, in the context of detector development. The MOLLER experiment aims to measure the weak charge of the electron to a high precision; MOLLER is currently in the development phase and is expected to start commissioning in 2018. The PREX and CREX experiments will determine the neutron radius of heavy nuclei, an important quantity for understanding neutron star structure, heavy ion collisions, and atomic parity violation.

The successful applicant will have a PhD in experimental nuclear or particle physics, ideally with several years of graduate level hardware experience in one or more of the areas of particle detector design, data acquisition development, or similar instrumentation projects, and has simulation experience, preferably with GEANT. The successful applicant must be able to enter and/or reside legally in the United States and must be willing and available to travel to various research institutes for extended periods of time, including to Europe, for beam tests. The successful applicant will be expected to travel to and from Jefferson Laboratory and the University of Manitoba for meetings and for extended periods to work on experiments and participate in data collection, as the need arises. The initial appointment will be for one year, with possible renewal for up to two additional years, depending on mutual agreement and availability of funds. The initial salary will be commensurate with experience and qualifications of the successful candidate.

The University of Manitoba is committed to creating a diverse and inclusive workplace. Applications are encouraged from qualified applicants including members of visible minorities, Aboriginal peoples, people with disabilities, people of all sexual orientations and genders, and others who may contribute to the further diversification of the university. All qualified candidates are encouraged to apply; however, Canadian citizens and permanent residents will be given priority.

We invite qualified candidates to submit resumes, including three letters of reference and salary expectations preferably by e-mail to: Wanda.Klassen@umanitoba.ca. Application materials, including letters of reference, will be handled in accordance with the protection of privacy provision of "The Freedom of Information and Protection of Privacy" (Manitoba). Please note that curriculum vitae may be provided to participating members of the search process.

This position will remain open until filled. For more information please contact

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