

Laurentian University
Université Laurentienne

Postdoctoral Research Positions at SNOLAB for the SNO+ and DEAP Experiments

Three Postdoctoral Research positions are available in the experimental particle astrophysics group at Laurentian University, for two experiments under development at SNOLAB in Sudbury, Ontario, Canada. SNOLAB is Canada's new state-of-the-art international facility for particle astrophysics and an expansion of the highly successful Sudbury Neutrino Observatory (SNO), located two kilometers underground at Vale Inco's Creighton Mine. For information on the laboratory and the experimental program please see www.snolab.ca.

The SNO+ experiment will refill the SNO detector with a custom liquid scintillator to extend SNO's solar neutrino measurements to lower energies as well as to study geo-neutrinos and reactor neutrinos. It also plans to load the scintillator with Neodymium to search for neutrino-less double beta decay with high sensitivity. Two postdoctoral associates would lead research in the SNO+ topics planned at the SNOLAB site and at Laurentian University. These include the establishing of purification and radio-assay techniques for the SNO+ metal-loaded liquid scintillator, and the study of detector backgrounds. Other topics include developing the SNO+ supernova neutrino burst trigger, Monte Carlo modeling, and other DAQ and data analysis tools.

The third postdoctoral associate will participate in the DEAP/CLEAN experimental program which uses single-phase liquid-argon as the detecting medium to search for WIMP dark matter. The collaboration is developing detectors at several mass scales including DEAP-1, a 7kg detector, MiniCLEAN a 360 kg detector and DEAP/CLEAN a 3600 kg detector. DEAP-1 is currently operating underground at SNOLAB while MiniCLEAN and DEAP/CLEAN are proposed to be installed at SNOLAB in 2009 and 2010 respectively. The successful candidate will take a lead role in the operation and analysis of data from DEAP-1 and will participate in the development of DEAP/CLEAN including the implementation of the calibration systems.

We seek applicants with a PhD in experimental particle astrophysics, nuclear or particle physics or a closely related field. The candidates should have demonstrated ability to lead efforts in hardware development and data analysis. These positions are based at the SNOLAB site in Sudbury and administered through Laurentian University. The initial appointments will be for two years. Salary will be commensurate with qualifications and experience. Applicants should send a detailed CV and a statement of research interests, as well as arranging for three letters of reference to be forwarded to (please include the reference "SNO+/DEAP application"):

Ms. Shari Moss
SNOLAB Project Office
P.O. Box 159
Lively ON Canada P3Y 1M3
or by e-mail to jobs@snolab.ca

A review of applications will begin on July 27, 2008, but applications will be accepted until the positions are filled. We thank all who express interests in these positions and advise that only those selected for an interview will be contacted. For further information contact Dr. Clarence Virtue (cjv@snolab.ca).

Laurentian University is committed to equity in employment and encourages applications from all qualified applicants including women, aboriginal peoples, members of visible minorities and persons with disabilities.