

**Postdoctoral Fellows  
Experimental AstroParticle Physics  
Department of Physics  
Queen's University**



The SNOLAB Research group at Queen's University has Postdoctoral Research positions available with the DEAP and PICASSO Dark Matter search experiments. SNOLAB is Canada's new state of the art international facility for astroparticle physics and is an expansion of the highly successful Sudbury Neutrino Observatory (SNO) located near Sudbury, Ontario. SNOLAB is the deepest underground ultra-clean facility in the world, and is a leading location for conducting frontier experiments in astroparticle physics with rare event and low background detectors. Current experiments under construction include detectors for cosmological dark matter, neutrino-less double-beta decay, solar neutrinos, geo-neutrinos, reactor neutrinos, and supernovae monitoring.

One postdoctoral fellow will assist the PICASSO group with detector operation, data analysis, and the development of next generation detectors with ultra low levels of radioactivity. PICASSO, currently operational at SNOLAB, is a world leading experiment in the search for spin dependent dark matter interactions which utilizes highly sensitive droplet detectors with acoustic read out as the detector technique.

The other postdoctoral fellow will play a lead role in the design, construction, operation and analysis of data from the DEAP dark matter search detector, currently being developed for deployment at SNOLAB over the next year. DEAP will utilize 3600 Kg of liquid argon and scintillation readout to search for dark matter. With ultra-low background rates, large target mass, and strong pulse-shape discrimination, DEAP is projected to be world leading in sensitivity to spin independent interactions.

The successful candidates will have a PhD in experimental nuclear or particle physics or radiochemistry. Ideally, candidates will have research experience in astroparticle physics and/or low background radiochemical techniques. The candidates will be based primarily at Queen's University in Kingston, but will spend some of their time at the experimental sites in SNOLAB, and working with collaborating institutions. Salary will be commensurate with qualifications and experience.

Applications should include a statement of research interests, a detailed CV and the names of at least three references. Applications may be mailed to:

Prof. Tony Noble,  
99 University Avenue, Queen's University,  
Kingston, ON, CANADA, K7L-3N6;

or be sent by e-mail to: [noblet@queensu.ca](mailto:noblet@queensu.ca) Review of applications will begin February 29<sup>th</sup> 2012 and will continue until the position is filled.

Queen's University thanks all who express an interest and advises that only those selected for an interview will be contacted. The University invites applications from all qualified individuals. Queen's University is committed to employment equity and diversity in the workplace and welcomes applications from women, visible minorities, aboriginal people, persons with disabilities, and persons of any sexual orientation or gender identity.