

MSc and PhD students wanted

**Experimental Astroparticle Physics:
Going deep underground
... to understand the Universe**

Queen's University

The nature of the majority of the matter in the Universe is unknown, as are many of the properties of neutrino particles. The SNOLAB group (www.sno.phy.queensu.ca/group/) in the Department of Physics at Queen's University, Kingston, Ontario (www.physics.queensu.ca/), is looking for outstanding MSc and PhD students to work on these topics. The group plays a leading role in several international dark matter searches and neutrino physics experiments, located deep underground at SNOLAB (www.snolab.ca/). Experiments include:

- **CDMS** (cdms.phy.queensu.ca/): crystals frozen to barely above absolute zero provide some of the most sensitive particle detectors in the world
- **DEAP** (www.sno.phy.queensu.ca/group/projects.html#DEAP): a novel dark matter search; with a 3600 kg liquid argon target, DEAP is the largest dark matter experiment under construction
- **PICASSO** (www.sno.phy.queensu.ca/group/projects.html#PICASSO): superheated fluids to hear elusive particles
- **SNO+** (www.sno.phy.queensu.ca/group/projects.html#SNOPlus): a continuation of the Sudbury Neutrino Observatory with a liquid scintillator added for detecting lower energy neutrinos and double beta decay

The group also has several R&D projects on sophisticated detectors and instrumentation, including scintillators and cryogenic devices for other applications.

Expected starting dates range from January to September 2010. Candidates must apply through the Queen's school of graduate studies, but it is also recommended to send a brief CV and cover letter stating research interests in pdf format, along with the contact information of two references, and unofficial academic transcripts, to the address below prior to the official application procedure (www.physics.queensu.ca/Graduate/prospective.html). Review of applications is an ongoing process.

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