



## **CO-OP Undergraduate STUDENT**

**Radon Management**

**SNOLAB Research Division/Scientific support**

**Summer Term May-September 2023**

### **About Us**

SNOLAB is an international facility for world-class underground physics research and has an expanding programme in astroparticle physics and underground science. Located in an air-conditioned clean room 2 km underground in the Vale Creighton Mine near Sudbury Ontario, with a suite of surface facilities and laboratories, SNOLAB is currently preparing for the next generation of experiments focusing on neutrino studies and the search for galactic dark matter.

### **The Position**

Radon-222 is a problematic background to Astro-particle physics experiments searching for rare events, such as neutrinoless double beta decay and dark matter particle interactions. Radon-222 background in experiments are minimised by selecting low radon emanating materials as components of experiments and by controlling radon ingress inside the detector's active component. At SNOLAB we have highly sensitive equipment in order to measure radon level's in detector components. The student play an active role in development of new radon measuring tools. They will be in charge of building and testing new radon traps and helping with upgrade of the data acquisition system. They will also perform data analysis on radon samples. In addition, it is expected that the student contributes in radon assay of gas systems at SNOLAB. One such example is to measure the radon level in the SNO+ cover gas system.

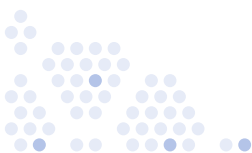
### **Criteria**

#### **Education:**

Applications from any undergraduate levels are accepted.

Must be 18 years or older, registered in post-secondary studies at an accredited institution or apprenticeship program, recent graduate (having graduated in the last 3-6 months) or individual returning to full-time or part-time studies in the next academic term.

#### **Experience:**



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Expertise in data analysis, statistics and modern programming languages is an advantage, ideally in the frame of C++, ROOT and/or Python. Experience working in a cleanroom laboratory is an advantage. Experience in building hardware components is required.

## Salary Range:

Salary will be determined by education and qualifications. These positions are subject to availability of funding. To meet operational needs, shift work may be required.

## To Apply:

Applications must be sent to [lina.anselmo@snolab.ca](mailto:lina.anselmo@snolab.ca), [nasim.fatemighomi@snolab.ca](mailto:nasim.fatemighomi@snolab.ca) and [studentjobs@snolab.ca](mailto:studentjobs@snolab.ca). **Please do not fax or mail your applications.** By applying to the e-mail address, your application becomes available to Research Scientists/Managers immediately. Interested students should include a cover letter and resume in a unique pdf file, named as "StudentName\_Project\_AcademicYear\_HomeInstitution".

For more details on this specific project, please contact Dr. Nasim Fatemighomi via email [nasim.fatemighomi@snolab.ca](mailto:nasim.fatemighomi@snolab.ca)

## Closing Date

**Deadline to Apply: 1<sup>st</sup> Feb**

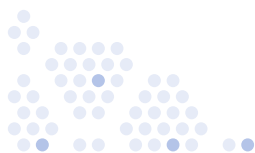
The posting will remain open until the position is filled. SNOLAB thanks all applicants for their interest, however, only those students considered for an interview will be contacted.

SNOLAB is committed to equity in employment and encourage applications from all qualified applicants, including women, Indigenous persons, members of visible minorities and persons with disabilities. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents.

SNOLAB will provide support in its recruitment processes to applicants with disabilities, including accommodation that takes into account an applicant's accessibility needs.

Further information about SNOLAB may be found at [www.snolab.ca](http://www.snolab.ca)

**Posting Date: 19 January 2023**



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