



Re: PhD student in radar remote sensing of sea/lake ice with the University of Manitoba, Winnipeg Canada and Environment and Climate Change Canada, Ottawa, Canada

**Project:**

We are looking for a Ph.D. student to implement a joint research project between the University of Manitoba (UofM) and Environment and Climate Change Canada (ECCC). The student will be located in Winnipeg, Manitoba, and co-supervised by Dr. Dustin Isleifson (UofM, Winnipeg) and Dr. Alexander Komarov (ECCC, Ottawa). The Ph.D. degree will be in Electrical Engineering, and conducted in collaboration with ECCC and the Centre for Earth Observation Science (UofM).

The Ph.D. project will be focused on in-situ and satellite radar remote sensing of sea/lake ice. We are particularly interested in sea/lake ice thickness retrieval from the combination of C&L-band radar data. The student will have access to various UofM indoor/outdoor lab facilities such as the Sea Ice Environmental Research Facility, Churchill Marine Observatory, Amundsen icebreaker, and instruments including C&L-band scatterometers, LiDAR, and Ground Penetrating Radar. The ultimate goal of the project is to develop techniques for retrieval of ice properties from C&L-band spaceborne synthetic aperture radar (SAR) data to improve ECCC environmental and numerical weather prediction forecasts.

**Requirements for applicants:**

- In-depth knowledge of the electromagnetic theory and/or SAR
- Readiness for field work
- M.Sc. degree in Electrical Engineering, Radiophysics, or Physics
- High GPA

**Funding:**

\$21,000 CAD / year minimum over 4 years is available, but it will be topped up if the candidate is successful in securing scholarships offered by the UofM, and/or the Natural Sciences and Engineering Research Council of Canada (if eligible). The student will be responsible for covering tuitions, yet we note that international student tuition fees equal to the Canadian student tuition fees for this Ph.D. program.

**Start date** is negotiable and depends on the student status (domestic/international).

**Application:**

Applicants should submit a CV and a cover letter that describes their relevant background and experience. Applicants selected for consideration will be contacted for an online interview. Please send your inquiries about the position and applications to Dustin Isleifson [dustin.isleifson@umanitoba.ca](mailto:dustin.isleifson@umanitoba.ca) and Alexander Komarov [alexander.komarov@ec.gc.ca](mailto:alexander.komarov@ec.gc.ca).