

Graduate positions in Marine Seismology

The Department of Earth & Environmental Sciences at the University of Ottawa invites applications to fill two fully funded graduate positions (MSc or PhD) in the uOttawa Geophysics group (https://www.uogeophysics.com). The students will work on several projects related to the study of lithosphere structure and dynamics at tectonic plate boundaries through seismic imaging. Potential research targets include the Hikurangi margin (New Zealand), the Cascadia subduction zone and the Queen Charlotte fault region. Projects may involve seismic data collection at sea using arrays of broadband ocean-bottom seismic instruments from the NFSI (http://www.nfsi.ca) and other facilities. The successful candidates will be expected to design and implement data processing tools combined with modern, statistical learning-based methods to investigate the seismic velocity structure of the lithosphere.

Necessary qualifications or skills:

- Completed MSc (or equivalent degree) in Geophysics, Geosciences, Physics, Civil or Mining Engineering or related fields
- Strong candidates with a BSc degree in those fields will be considered for a MSc position, with possibility to fast-track to the PhD program
- Good written and spoken English and/or French
- Programming experience (ideally in Python)

Tasks:

- Developing and testing automated approaches for broadband OBS data processing
- Applying these algorithms to large amounts of seismic waveform data
- Evaluating, understanding and comparing seismic velocity models at plate boundaries
- Interacting with scientists from different disciplines (collaborators within the project(s)), communicating and disseminating results at conferences and as publications

Application deadline: January 15, 2023

Start Date: September 2023 or January 2024

The University of Ottawa and the Geophysics Group are committed to diversity and equity in employment (https://www.uottawa.ca/president/strategic-areas/diversity-and-inclusion). We encourage applications from women, indigenous people, persons with disabilities, ethnic minorities, persons of minority sexual orientation or gender identity, visible minorities, and others who may contribute to diversity. The two positions are fully funded through NSERC grants, which offers financial support for parental leaves and extension of the degree (https://www.nserc-crsng.gc.ca/NSERC-CRSNG/policies-politiques/Wleave-Fconges eng.asp).

For more information, please send an email to Prof. Pascal Audet (he/him) (pascal.audet@uottawa.ca). Interested candidates should send a one-page cover letter outlining their suitability and motivation for the position and any factors that influenced their ability to perform academically (family responsibilities, medical leaves, etc.). Official transcripts, a full CV and contact details of two references should also be included. Selected applicants will need to submit a formal application for either the MSc or PhD program (https://www.uottawa.ca/graduate-studies/programs-admission/apply) before February 1, 2023.