



uOttawa



DALHOUSIE
UNIVERSITY

PhD Position in Marine Seismology

We invite applications to fill one PhD position in Marine Seismology, co-supervised between the Department of Earth & Environmental Sciences at the University of Ottawa and at Dalhousie University. The successful candidate will be based in Ottawa and will be part of uOttawa Geophysics group (<https://www.uogeophysics.com>), but will work in co-supervision with the group at Dalhousie (<http://dig.earthsciences.dal.ca/~mladen/>). The PhD student will work on determining the seismicity and seismic velocity structure of the southern Hikurangi Margin offshore New Zealand, to constrain the factors controlling megathrust fault coupling and seismogenesis. This project involves data collection at sea using an array of broadband ocean-bottom seismic instruments from the NFSI (<http://www.nfsi.ca>), and the successful candidate is expected to participate in the deployment and recovery of the instrumentation offshore New Zealand. He/she will analyze the collected data by designing and implementing data processing tools combined with modern, statistical learning-based methods to investigate these problems. This position is funded through the iIMAGE NSERC-CREATE program (<https://image-create.ca>), which provides opportunities for scientific and technical training.

Necessary qualifications or skills:

- Completed MSc (or equivalent degree) in Geophysics, Geosciences, Physics or related field
- 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
- Interaction with scientists from different disciplines (collaborators within the project(s)), communication and dissemination of obtained results

Application deadline: January 31, 2022

Start Date: September 2022

The University of Ottawa and the Geophysics Group, as well as the group at Dalhousie, 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 an NSERC grant, 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 (<https://catalogue.uottawa.ca/en/graduate/doctorate-philosophy-earth-sciences/#text>) (<https://www.uottawa.ca/graduate-studies/programs-admission/apply>).