Two PhD Positions in Marine Seismology

The Department of Earth & Environmental Sciences at the University of Ottawa invites applications to fill two PhD positions in the uOttawa Geophysics group (https://www.uogeophysics.com). The PhD students will work on a number of projects related to the study of oceanic lithosphere structure and processes, in particular 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 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: March 31, 2021

Start Date: September 2021 or January 2022

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 (Discovery Grant and CREATE program), 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). The positions are planned to start in September 2021, but this is subject to modification depending on the development of the pandemic situation.