



THE UNIVERSITY  
OF BRITISH COLUMBIA

## **M.Sc. or Ph.D. position in Physical Oceanography: Glacier-ocean interactions in the Canadian Arctic Archipelago**

The Canadian Arctic Archipelago (CAA) is vulnerable to climate warming, and with over 300 tidewater glaciers, is a hotspot for enhanced glacial retreat and meltwater runoff to the ocean. Glacier meltwater impacts the physical and chemical oceanography on local, and potentially regional scales, yet these impacts are poorly understood. Every year since 2019, we have collected novel ocean observations in Jones Sound to understand the effects of glacial meltwater on the local physical oceanography and marine ecosystems. Further, we work extensively with a high-resolution numerical model of the Arctic and Northern Hemisphere Atlantic Oceans designed to study ocean, sea ice and biochemistry processes in the northern high-latitude ocean.

We seek a highly-motivated graduate student at the M.Sc. or Ph.D. level interested in a research project that involves the analysis of a combination of oceanographic observations and high resolution numerical model output. The scientific questions guiding the project remain open and will relate to the physical oceanography of the region, oceanic exchanges into fjords and their impact on tidewater glaciers, the role of freshwater in Jones Sound, the fate of glacier inputs on a regional scale, and/or high-resolution regional ocean modelling methods. The successful candidate will work under the joint guidance of [Dr. Stephanie Waterman](#) ([Department of Earth, Ocean & Atmospheric Sciences, University of British Columbia](#)) and [Dr. Paul Myers](#) ([Department of Earth and Atmospheric Sciences, University of Alberta](#)). Although a student would have either the University of Alberta or the University of British Columbia as their home institution, an extended visit of 3-4 months to the other institution would likely be part of the program. The start date is flexible with a start date of January, May or September 2022 being ideal. There are likely opportunities to participate in related fieldwork in summer 2022 and summer 2023.

Candidates should hold an undergraduate degree in Physics, Mathematics, Computer Science, Engineering, Oceanography, or a related field. Applications should include a cover letter indicating your motivation and relevant research experience, a detailed curriculum vitae, academic transcripts and the contact information for at least two referees. Applications should be emailed to Dr. Stephanie Waterman ([swaterman@eoas.ubc.ca](mailto:swaterman@eoas.ubc.ca)) and Dr. Paul Myers ([pmyers@ualberta.ca](mailto:pmyers@ualberta.ca)). The review of applications will commence on 1 Sept 2021 and continue until the position is filled.

*Both the University of Alberta and the University of British Columbia are committed to an equitable, diverse, and inclusive workforce. We welcome applications from all qualified persons. We encourage women; First Nations, Métis and Inuit; members of visible minority groups; persons with disabilities; persons of any sexual orientation or gender identity and expression; and all those who may contribute to the further diversification of ideas and the University to apply.*