MSc Opportunity
University of Quebec at Montreal, Montreal, Quebec, Canada

Global Water Futures

Storms and Precipitation Across the Continental Divide Experiment (SPADE)

This project focuses on **cold region processes related to storms and their precipitation at the top of the western Cordillera**. Despite essential role of precipitation, very few observations that link surface features, precipitation and atmospheric conditions are available in this region. The overall goal is to study storms and precipitations across the continental divide. One of the key issues is how much of the moisture flux crosses the barrier from either the Pacific in eastward moving storms or from the Prairies and Gulf of Mexico in leeside (upslope) storms. In particular, small-scale features of this moisture transport such as the distribution of snowfall, from for example, preferential deposition, will be addressed.

We are seeking a MSc candidate that has a strong background in atmospheric sciences, physics or related fields. The successful candidate will examine the precipitation processes aloft with respect to the synoptic-scale systems, whether it propagated eastward or westward over the divide. S/he will use field experiment data such as, for example, precipitation characteristics and the Micro Rain Radar to compare the weather conditions simultaneously on both sides of the divide and to compare with the numerical simulations. The candidate will have the opportunity to conduct a field experiment across the continental divide during the month of May and June 2019. The project is based at the University of Quebec at Montreal located downtown Montreal, Quebec, Canada. This is a fully funded project for 2 years starting in September 2018. Interested applicants are encouraged to contact Prof Julie Thériault at theriault.julie@uqam.ca with a complete CV by February 1st, 2018 (or until the position is filled). The successful candidate will have to submit an application to the graduate program in Atmospheric Sciences at UQAM.