The Centre for Atmospheric Research at University of Canterbury in Christchurch and the School of Geography at University of Otago in Dunedin, are pleased to announce the availability of **2** PhD studentships funded by Antarctic Science Platform in New Zealand. Both are part of a wider scientific program aimed to understand the impact of climate disruption on the Ross Sea Region's (RSR) unique physical environment and ecosystems.

PhD Project 1: The impact of regional climate change on the hydrological systems of the McMurdo Dry Valleys and other snow/ice free terrestrial landscapes within the RSR of Antarctica

PhD Project 2: The impacts of meteorological and climate forcing on glacier surface mass balance and melt water production in the McMurdo Dry Valleys, and other glaciated landscapes within the RSR of Antarctica

Starting date: Successful candidates to start their PhD projects in 2020
Scholarship: NZ $27,000 stipend per annum plus a domestic tuition fees waiver for 36 months (excludes student services fee and insurance)
Conference: travel and registration costs are supported for one international trip
Journal paper publications from student research outputs are strongly encouraged and financially supported
Antarctic-based fieldwork opportunities are available for the students' proposed research. Students will be encouraged to engage with and join the wider research team for observational data collection and visiting Antarctica to conduct experiments.

Research program scope: The research goal of the Antarctic Science Platform project is to determine how ecosystems within the Ross Sea region may respond to environmental challenges associated with global climate change under the Paris Agreement climate change scenarios. This is a multidisciplinary program covering topics in meteorology, climate, glaciology, ecology, remote sensing and machine learning. The PhD candidates will be enrolled at the University of Canterbury (PhD project 1) and the University of Otago (PhD project 2), but are expected to work tightly together and with researchers from the National Institute of Water and Atmospheric Research (NIWA) and the Institute of Landscape Ecology at the University of Münster. We are looking for PhD candidates with theoretical understanding of surface-atmosphere interactions, in particular on turbulent energy exchange processes and/or glacier energy and mass balance exchanges. The PhD candidates should have the flexibility and basic experience in working with micrometeorological field measurement equipment, and are willing to spend time in the development of new experiments and field data collection when necessary. Strong analytical and numerical modelling skills are required for these projects, with experience working with data processing software (e.g. Matlab, R, and/or Python) and large gridded climate data outputs strongly desirable. Applicants who have used the WRF-Hydro modelling system or have snow or hydrological modelling experience are strongly encouraged to apply.

Please email your cover letter, CV and a copy of your academic transcripts to both contacts below and indicate your project preference.

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