



## **Fully-funded Ph.D scholarship in Antarctic ice-sheet modelling.**

The Antarctic Research Centre, Victoria University of Wellington, New Zealand, is offering a FULLY FUNDED scholarship for an enthusiastic and talented Ph.D student to undertake numerical ice-sheet modelling research. Experiments will focus on better understanding and simulating the processes involved in ice-sheet – ocean interactions. Such processes determine the basal mass balance of marine-based ice-sheets such as the West Antarctic Ice Sheet, and as such, control the pattern and timing of grounding-line migrations.

Collaborating with scientists at a variety of New Zealand (VUW, GNS, NIWA) and Australian (UNSW, UTAS, AAD) institutions, the researcher will use present-day glaciological and oceanographic observations as primary constraints to a suite of model simulations that will explore the sensitivity of Antarctic ice-sheets to changes in ocean circulation. A key aspect of the project lies in trying to identify and quantify thresholds and feedback mechanisms that may either accelerate or inhibit ice-shelf melt. The ultimate aim of the project is to build on recent work to provide more robust simulations of ice-shelf and ice-sheet changes under future scenarios of perturbed atmospheric and oceanographic conditions.

The research project will span a range of temporal and spatial scales, but will primarily use the Parallel Ice Sheet Model and will focus initially on the Ross Ice Shelf. The successful applicant may also have the opportunity to spend time in Antarctica acquiring new data.

### **Skills:**

Applicants must have a strong background in geophysics, maths or other numerical Earth Sciences. Experience working in a UNIX / Linux environment, including shell scripting, is essential. Programming abilities in any of the usual languages and experience with high-performance computing facilities would also be extremely useful.

### **Applications:**

We wish to have the successful applicant starting no later than July 2016, and therefore request completed applications by 18<sup>th</sup> December 2015.

For details of the application process or to lodge an expression of interest, contact **Dr. Nick Golledge** ([nick.golledge@vuw.ac.nz](mailto:nick.golledge@vuw.ac.nz)) as soon as possible.

### ***The Antarctic Research Centre:***

*The ARC is a research centre within the School of Geography, Environment and Earth Sciences at Victoria University of Wellington. We specialise in geological, glaciological, and climate-based science both in and around Antarctica, and have been involved in field-based Antarctic research expeditions every year since 1957. More information about our research and the people involved in it can be found at <http://www.victoria.ac.nz/antarctic> .*