International Symposium on
The Cryosphere in a Changing Climate

Wellington, New Zealand, 12–17 February 2017

Co-sponsored by:
◦ International Glaciological Society
◦ International Association of Cryospheric Sciences (IACS)
◦ World Climate Research Programme
Climate and Cryosphere (CliC) project

FIRST CIRCULAR
November 2015

CONTACTS
Magnus Mar Magnusson, Secretary General, International Glaciological Society (IGS); Andrew Mackintosh, Secretary General, International Association of Cryospheric Sciences (IACS) and Chair of Local Organizing Committee (LOC); Gwen Hamon, Executive Officer, CliC (World Climate Research Programme Climate and Cryosphere Project)

THEME
This is the first international symposium that will bring together three of the leading international organisations in the field of cryospheric research: IGS, IACS and CliC. The theme of the conference ‘The Cryosphere in a Changing Climate’ is global in scope with a focus on physical processes within the cryosphere, and interactions between the cryosphere and the climate system. This symposium will also serve as the 2017 meeting of New Zealand Snow and Ice Research Group (SIRG; the NZ regional branch of the International Glaciological Society).

TOPICS
Topics will include (but are not limited to)
1. Contribution of glaciers and ice sheets to sea level changes, past, present and future
2. Thresholds and processes for ice shelf loss in a warming world
3. Attribution of cryospheric changes to natural and anthropogenic climate changes
4. Glacier and ice sheet dynamics: processes, uncertainties, boundary conditions, field and laboratory experiments and modelling
5. Coupling of global climate models to glacier, ice sheet and snow models
6. Ice cores and climate
7. Ice–ocean interactions in a changing climate
8. Contrasting hemispheric sea ice behaviour
9. Cryospheric feedbacks to climate change, including polar amplification of climate
10. Snow processes and their relevance in a changing climate
11. Snow and glacier hydrology, and changing runoff in a warming climate
12. Effects of climate variability and change on mountain glaciers
13. Emerging areas of cryosphere/climate research
LOCAL ORGANIZING COMMITTEE
Andrew Mackintosh (chair), Victoria University of Wellington.


– Canterbury University, Christchurch: Heather Purdie, Wolfgang Rack, Adrian McDonald

– Aqualinc Research Ltd, Christchurch: Tim Kerr

– Otago University, Dunedin: Christina Hulbe, Nicolas Cullen, Christian Ohneiser, Pat Longhorne, David Prior

– NIWA: Andrew Lorrey, Natalie Robinson, Christian Zammit, Helen Bostock, Craig Stevens

– GNS Science: Richard Levy, Marcus Vandergoes

– University of Tasmania, Hobart, Australia: Matt King, Ben Galton Fenzi, Rob Massom

SCIENCE STEERING AND EDITORIAL COMMITTEE
Ian Allison (chair), Ben Galton Fenzi, Charles Fierz, Marika Holland, Christina Hulbe, Christine Schött Hvidberg, Gerhard Krinner, Andrew Mackintosh, Marilyn Raphael, James Renwick, Shin Sugiyama, Carleen Tijm-Reijmer, Tessa Vance.

ABSTRACT AND PAPER PUBLICATION
Participants wishing to present a paper (either oral or poster) at the Symposium will be required to submit an abstract by Monday 12 September 2016 (5 months prior to the symposium). The Council of the International Glaciological Society has decided to publish a thematic issue of the *Annals of Glaciology* on topics consistent with the Symposium themes. Submissions to this issue will not be contingent on presentation at the Symposium, and material presented at the symposium is not necessarily affirmed as being suitable for consideration for this issue of the *Annals*. Participants are encouraged, however, to submit manuscripts for this *Annals* volume. The deadline for submission of *Annals* papers will be published at a later date.

PRE-CONFERENCE FIELD TRIP – Organizer: Dr Shaun Eaves
Tongariro National Park is one of only a few UNESCO ‘mixed’ cultural and natural World Heritage sites, famous for its spectacular volcanoes, endemic vegetation and cultural heritage. Several small glaciers remain on the highest mountain in Tongariro National Park (Mt Ruapehu, 2797 m). The field trip will include a full-day (~8 hour) mountain walk known as the ‘Tongariro Alpine Crossing’, as well less strenuous sight seeing. This will include a soothing visit to a natural hot pool. It is a four hour drive to Tongariro National Park, and guests will depart by coach from Wellington on Friday 10 February, returning in time for the symposium icebreaker in Wellington on Sunday 12th.
POST-CONFERENCE FIELD TRIP – Organizer: Dr Heather Purdie
A 4–5 day field trip will be organised to immediately follow the conference. The field trip will depart from Christchurch, and participants will spend 2–3 days based at Aoraki/Mt Cook village, where there will be opportunity to join a guided walk to the Hooker Valley, including a visit to Hooker and Mueller Glaciers, a cruise amongst the icebergs on Lake Tasman and a scenic flight around Tasman Glacier and the summits of Aoraki/Mt Cook and Mt Tasman (weather-dependent, at own cost). Note: Participants will need to organize their own transport from Wellington to Christchurch (1 hour flight, >10 flights per day).

MID-CONFERENCE FIELD TRIP
We will visit Martinborough in the Wairarapa for lunch or an early dinner. This region is famous for its sunshine, fresh produce and fine Pinot Noir wines. The Wairarapa is located approximately 90 km east of Wellington, across the Rimutaka Range.

BANQUET: The banquet will be held in a restaurant on Wellington’s waterfront on the evening of Thursday 16 February.

TRAVEL GRANTS FOR STUDENTS: We will offer a limited number of travel grants for early career researchers, and/or researchers from developing countries. An application including a motivation letter and CV will be required during the time of abstract submission.

VENUE
The conference will be based in the Alan McDiarmid Building, with state-of-the-art lecture theatres and communal spaces on the Kelburn Campus of Victoria University of Wellington, adjacent to the Antarctic Research Centre. Accommodation will also be available within Victoria University of Wellington’s student halls of residence.

Wellington is the capital city of New Zealand. Known for its quality of life and consistently featuring as a top destination on tourism hit lists, Wellington is affectionately known as the ‘coolest little capital’. It is a dynamic small city of approximately half a million residents, well known for its culinary scene, coffee and microbrewery culture. It has a strong university and government research sector, and several hundred earth and atmospheric scientists are based there.

Wellington is situated at the southern tip of the North Island of New Zealand in a hilly, harbour-side setting. Nature is close at hand; pockets of temperate rainforest, penguin and seal colonies are situated within the city limits. Outstanding mountain biking and sea kayaking await within just a few minutes of the city centre.

It can be wet and windy at any time of year in New Zealand, but February is the warmest and most settled month; mean daytime temperature in Wellington is 20°C, and rarely exceeds 25°C. Overnight temperatures average a cool 13°C. It is the best time of year to enjoy Wellington and, if you have the opportunity, New Zealand as a whole.