International Symposium on
The Cryosphere in a Changing Climate

Wellington, New Zealand, 12–17 February 2017

*Sponsored by:*
- International Glaciological Society
- International Association of Cryospheric Sciences (IACS), an association of the International Union of Geodesy and Geophysics (IUGG)
- World Climate Research Programme Climate and Cryosphere (CliC) project

*Co-sponsored by:*
- National Institute for Water and Atmospheric Research (NIWA)
- University of Otago
- New Zealand Antarctic Research Institute (NZARI)
- Victoria University of Wellington
- GNS Science

SECOND CIRCULAR
August 2016
http://www.igsoc.org/symposia/

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; Gwen Hamon, Executive Officer, CliC (World Climate Research Programme Climate and Cryosphere Project)

THEME
This is the first international symposium to bring together three of the leading international organizations 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), as well as the location for the IACS Bureau and CliC Scientific Steering Group meetings.

Plenary speakers will include Professor Rob DeConto (University of Massachusetts, ice sheet modelling, 2016 Tinker–Muse prize winner), Professor Ben Marzeion (University of Bremen, mountain glaciers), Professor Marilyn Raphael (University of California, Los Angeles, sea ice, atmospheric circulation) and Professor Dorthe Dahl Jensen (University of Copenhagen, ice cores and climate).
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.

An expanded description of these topics is now available on the symposium website (http://www.climate-cryosphere.org/meetings/upcoming-clic/2017-cryosphere-in-a-changing-climate-conference).
REGISTRATION FEES
All fees are in New Zealand Dollars, NZD
Early registration until 15 Dec 2016

- Participant (IGS member): $745
- Participant (not IGS member): $845
- Student or retired (IGS member): $495
- Student or retired (not IGS member): $595
- Accompanying person (18+): $300
- Accompanying person (12–17): $200
- Accompanying person (<12): Free
- Delegate registration from 16 Dec 2016: +$50
- Delegate late registration surcharge (from 16 Jan 2017): $100

All prices will be charged in UK£ equivalent at the exchange rate valid near the date of transaction.

The fees include the Icebreaker, the Symposium Banquet, daily morning/afternoon refreshments and the Wednesday afternoon field trip.

Please register for the symposium through the IGS website. If you cannot do this, contact the IGS office directly. If payment by credit card is not possible, contact the IGS office to arrange for a bank transfer.

Please check whether you will require a visa to enter New Zealand. If you need an invitation letter, please contact the IGS office at igsoc@igsoc.org. The sooner you do this the more likely it is that your visa will come through in good time. Apply early to allow enough time for your visa to be processed.

ACCOMPANYING PERSONS
The accompanying person’s registration fee includes the Icebreaker, the Wednesday afternoon field trip and the Symposium Banquet. It does not include attendance at the presentation sessions.
ABSTRACT AND PAPER PUBLICATION
Participants wishing to present a paper (either oral or poster) at the Symposium must submit an abstract by Monday 17 October 2016. Abstracts need to be submitted via the IGS website. A collection of submitted abstracts will be provided for all participants at 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 9 January 2017.

VENUE
The conference will be held at Rutherford House, located in the Pipitea Campus of Victoria University of Wellington. Rutherford House is conveniently located in the city centre, adjacent to the waterfront, Parliament, the railway station, shopping areas, cafes and restaurants, and within a 10–15-minute walk of nearly all major hotels. Registration, poster displays and coffee breaks will be held on the mezzanine floor of Rutherford House, immediately adjacent to Rutherford House Lecture Theatres 1 and 2 (where the oral presentations will be held).

LOCATION
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 at the Wellington campuses of Victoria University, GNS Science and NIWA.

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 can be found within a few minutes of the city centre. Oriental Bay offers good swimming in fine weather (30-minute walk from conference venue).

February is a lovely time of year to visit Wellington. The weather is at its warmest and most settled; mean daytime temperature is 20°C, and rarely exceeds 25°C. Overnight temperatures average a cool 13°C. It is also the best time of year to enjoy New Zealand as a whole.

ACCOMMODATION
A limited number of places will be available at Weir House, a student hall of residence located within 1.5 km of the conference venue (a 25-minute walk). Single rooms with linen and towel provided as well as free internet and including breakfast cost $70 NZD per night. This accommodation must be booked and paid for online during the registration process. Please do this early to avoid disappointment.

A number of hotels have provided group rates for our conference. You must contact these hotels and make the bookings yourself. To book and guarantee your room, please provide them with your credit card details at least 45 days prior to arrival. Use the codes provided below (different for each hotel) to secure your room. All hotels listed below are located within walking distance of the conference venue. However, note that there are many other
Wellington hotels within walking distance of the venue, as well as less expensive backpacker accommodation. February is peak tourist season and we recommend that you book as early as possible.

- Rydges Hotel, 75 Featherston Street, Wellington (400 m to Rutherford House). Room only, $199/$219 NZD per night for ‘Superior Room’, subject to availability at time of booking. Use code X-VIC0217 to access this rate. Phone: +64 4 499 8686, Fax: +64 4 499 8687, Email: reservations_wellington@rydges.com

- Ibis Hotel, 153 Featherston St, Wellington (700 m to Rutherford House). Room plus breakfast, $210 NZD per night, subject to availability at time of booking. Use code CCC120217 to access this rate. Email h3049-re1@accor.com or phone +64 4 496 1880 to make reservations.

- Novotel, 133 The Terrace, Wellington (800 m to Rutherford House). Room plus breakfast, $249 NZD per night, subject to availability at time of booking. Use code CCC120217 to access this rate. Email h3049-re2@accor.com or phone +64 4 918 1900 to make reservations.

- Mercure, 345 The Terrace, Wellington (2 km to Rutherford House). Room plus breakfast, $195 NZD per night. Use code CCC120217 to access this rate. Email h1991-re1@accor.com or phone +64 4 385 9829 (during business hours).

WiFi is complimentary at both Rydges and Weir House. It will be an additional cost at Ibis, Novotel and Mercure.
PRE-CONFERENCE FIELD TRIP 10–12 February
Organizer: Shaun Eaves

Tongariro National Park is one of only a few UNESCO ‘mixed’ cultural and natural World Heritage sites, famous for its spectacular active volcanoes, endemic vegetation and cultural heritage. At 2797 m, Mt Ruapehu is North Island’s highest peak and supports New Zealand’s northernmost glaciers. This field trip will include accommodation at a local lodge, a full-day (~8 h) mountain walk known as the ‘Tongariro Alpine Crossing’, as well as a soothing visit to a nearby geothermal pool. Alternatively, a range of shorter walks (~1–4 h) are also available. It is a 5-hour drive to Tongariro National Park, and guests will depart by coach from Wellington at midday on Friday 10 February, returning in time for the symposium Icebreaker on Sunday 12 February. The cost per person will be approximately NZ$350 per person, depending on the type of accommodation selected. Registration must be carried out via the IGS website as part of the conference registration process. Spaces are limited.

ICEBREAKER
The Icebreaker, sponsored by the University of Otago, will be held on Sunday 12 February on the Mezzanine floor of Rutherford House, the conference venue. Refreshments (including drinks) and finger food will be available 5–7 pm. Delegates can also use this opportunity to complete their registration and collect their conference bag.

BANQUET
The banquet will be held at Macs Brewery on the evening of Thursday 16 February. It will include a three-course meal in this spectacular location on Wellington’s waterfront. Some drinks will be provided and in addition there will be a cash bar.
MID-CONFERENCE FIELD TRIP
On Wednesday 15 February, we will visit Martinborough in the Wairarapa, approximately 90 km east of Wellington, across the Rimutaka Range. This region is well known for its sunshine, fresh produce and fine Pinot Noir wines. We will stop en route to examine the remarkable geology and geomorphology of this region. The conference fee includes transportation to/from Wellington by coach, wine tastings and an early dinner in Martinborough.

POST-CONFERENCE FIELD TRIP, 18–21 February
Organizer: Heather Purdie.
A four-day field trip will be organized to immediately follow the conference. We will depart from Christchurch at 1 pm on Saturday 18 February and participants will spend three nights at Aoraki/Mt Cook village. On Sunday 19th there will be a guided walk up the Hooker Valley to view the Mueller and Hooker Glaciers, taking in the majestic alpine scenery, and tales of early exploration en route. On Monday 20th we will go for a cruise among the icebergs on Lake Tasman and engage with local scientists about their research on the highly dynamic Tasman Glacier. Participants will also have the opportunity to take a scenic flight around Tasman Glacier and the summits of Aoraki/Mt Cook and Mt Tasman (weather-dependent, at own cost), and there are a number of other walks and activity options in and around the village. We will depart Aoraki/Mount Cook on Tuesday 21st at 1 pm; arriving in Christchurch around 6 pm. Accommodation is bunk/dorm style and includes breakfast and a packed lunch each day. There are a variety of dining options (self-arranged) for evening meals depending on taste and budget. Cost per person will be $450 NZD (includes coach transport to/from Christchurch, three nights accommodation, breakfast/lunches and boat trip on Lake Tasman). Field trip registration must be carried out via the IGS website as part of the conference registration process. Spaces are limited.

Participants will need to organize their own transport from Wellington to Christchurch (1 hour flight, >10 flights per day, see http://www.airnewzealand.co.nz/ and http://book.jetstar.com).
Note: participants are welcome to arrange more expensive accommodation at Mt Cook village, with the cost of participation adjusted accordingly.

TRAVEL GRANTS FOR STUDENTS
Funding is available to partially support student and postdoc attendance at this symposium, in particular for early-career scientists from developing countries. Applications should be sent by e-mail to travelgrants@cryosphericsciences.org, and include

- a copy of your submitted abstract
- a short CV (max. one page)
- a brief statement of motivation, including why attendance at the conference will be beneficial (~½ page)
- a specification of your financial needs (must include a budget and disclosure of other sources of funding).

Deadline is Monday 17 October 2016. Please send the application as ONE SINGLE pdf file, using your first and last name as filename, e.g. charles_fierz.pdf. Applications exceeding two pages (not including the abstract) will not be considered. Grantees will be notified by Friday 11 November 2016. Grants will be paid in cash at the conference registration desk.

SYMPOSIUM ORGANIZATION
Magnús Már Magnússon (International Glaciological Society)

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IMPORTANT DATES

The Cryosphere in a Changing Climate

Abstract submission deadline: 17 October 2016
Deadline for travel grant application: 17 October 2016
Notification of acceptance: 31 October 2016
Opening of online registration: 10 September 2016
Notification of acceptance for travel grant: 11 November 2016
Early registration deadline: 15 December 2016
Deadline for full refund: 9 January 2017
Deadline for refund on a sliding scale: 22 January 2017
Late registration surcharge: 16 January 2017
Pre-conference field trip: 10–12 February 2017
Registration and Icebreaker: 12 February 2017
Symposium starts: 13 February 2017
Post-conference field trip: 18–21 February 2017

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Paper submission deadline: 9 January 2017
Final revised papers deadline: 12 April 2017

Information will be updated on the conference website, http://www.igsoc.org/symposia/2017/newzealand/ as it becomes available.