

IACS promotes the advancement
of cryospheric sciences of
the Earth and solar system



IACS

International Association
of Cryospheric Sciences

IACS NEWSLETTER

August 2023

Report from IUGG Assembly 2023

In July many IACS members were gathered at the 28th International Union of Geodesy and Geophysics (IUGG) General Assembly in Berlin, Germany. More than 5000 registrants from more than 100 countries attended the meeting. IACS organized 15 symposia, in addition to 24 joint symposia with other IUGG Associations. Highlights included a well attended and entertaining award talk session with the three IUGG Early Career Scientist Awardees nominated by IACS: Mohd Farooq Azam, Natalya Gomez and Johan Gaume, the union lecture by Ricarda Winkelmann and the IUGG Gold Medal lecture by Valérie Masson-Delmotte. Several splinter meetings were held during the meeting. IACS held its open plenary administrative meeting where IACS as well as the working groups, joint commissions, GTN-G, GLIMS, WGMS and GAPHAZ gave short reports on their status and activities. The plenary was followed by dinner (Fiesta Cryospherica) for 70 registered participants on a very warm evening.



Ricarda Winkelmann gave the IACS union talk.



Secretary general Richard Essery gave the financial report at the IACS plenary meeting.



Fabien Maussion chairing the RGI working group meeting.



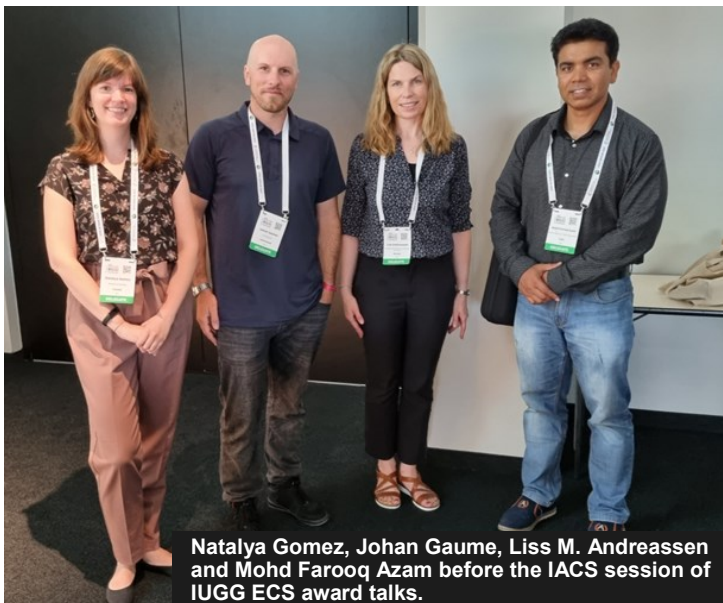
Felicity McCormack presented at the plenary meeting.



Guillaume Jouvet at his poster.



Valérie Masson-Delmotte gave the gold medal lecture.



Natalya Gomez, Johan Gaume, Liss M. Andreassen and Mohd Farooq Azam before the IACS session of IUGG ECS award talks.



IACS ECS paper award winners Yixi Zheng and Veronica Tollenaar received their certificates at the plenary. Photos by L. M. Andreassen, C. Hvidberg, R. Hock, IUGG.

New IACS bureau

The new IACS bureau for 2023-2027 was elected at the IACS plenary meeting on 15 July where national delegates voted on the ballot proposed by the independent nomination panel. Remote voting was possible in advance by email. For the position of division head for Sea Ice, Lake and River Ice there were two candidates: Sandra Barreira got 12 votes, whereas Alex Fraser got 11 votes including electronic and in person voting. Other positions received 21-22 votes each. We thank outgoing members Gwenn Flowers, Charles Fierz, Takenobu Toyota and Stanislav Kutuzov for their service to IACS. The new bureau for 2023-2027 is:

President: Liss M. Andreassen (Norway)
President-elect: Mathieu Morlighem (USA)
Secretary general: Richard Essery (UK)

Vice Presidents: Minghu Ding (China)
 Regine Hock (Norway/USA)
 Andrew Mackintosh (Australia)

Heads of divisions:
Snow & Avalanches: Rebecca Mott (Switzerland)
Glaciers: Mohd Farooq Azam (India)
Ice sheets: Sophie Nowicki (USA)
Cryosphere, Atmosphere and Climate: Anais Orsi (Canada)
Sea Ice, Lake & River Ice: Sandra Barreira (Argentina)
Planetary & other ices of the solar system: Christine Schött Hvidberg (Denmark)

Deputy division heads:
Ice sheets: Ted Scambos (USA)
Sea Ice, Lake & River Ice: Alex Fraser (Australia)



The new IACS bureau 2023-2027 at IUGG after their first bureau meeting.

From left: Farooq Azam, Rebecca Mott, Anais Orsi, Andrew Mackintosh, Regine Hock, Richard Essery and Christine Schött Hvidberg.

First row: Minghu Ding, Liss M. Andreassen, Ted Scambos, Sophie Nowicki and Mathieu Morlighem.

Inserted photos: Alex Fraser and Sandra Barreira.

Photo: Kumiko Goto-Azuma.

International Science & Infrastructure for Synchronous Observation

Antarctica InSync is a proposal for an internationally coordinated synchronous scientific observation mission in and around Antarctica, to allow for a circumpolar assessment of the connections between ice, ocean, climate, environment and life, including human pressures, and their solutions such as marine protection. The SCAR Southern Ocean Action Plan has outlined the need for pan-Antarctic studies across a number of scientific disciplines. It builds on a Horizon Scan across the scientific communities including those of SOOS, GOOS, ACCE and others. This proposal for a coordinated synchronous mission will be realized in close collaboration with SCAR, which has initiated a UN Decade Collaborative Centre (DCC) for the Southern Ocean. We seek the logistic contribution of all National Antarctic Programs via COMNAP, for a planning phase in 2024-2026, and implementation/synthesis in 2027-2030. This mission is thus planned as a contribution to SCAR and to the regional and thematic programs of the UN Decade for Ocean Science for Sustainable Development, which calls for innovative science solutions and a shared, global effort that builds on decades of achievement. Beyond ocean research it shall include synchronous terrestrial and airborne observations, making use of all available platforms and observatories in the region. Websites and contact addresses will be made available to the community soon, feedback and questions can already be submitted to director@awi.de.

(Report by Olaf Eisen and Antje Boetius)

Charles Fierz honorary member of IACS

Charles Fierz was elected honorary member of IACS at the plenary meeting at IUGG 2023. Charles Fierz has been an invaluable and dedicated supporter of the International Association of Cryospheric Sciences (IACS) for 16 years. He has served as head of division for snow for two terms (2007-2011 and 2019-2023) and led the organisation as president-elect/president/immediate past president (2013-2019).

Charles is a snow scientist and recently retired as team leader at WSL Institute for Snow and Avalanche Research SLF, Research Unit Snow and Atmosphere, Davos, Switzerland. He is interested in all facets of snow, from its formation in the atmosphere to its deposition on the surface. He has been involved in the development, verification, and comparison of the open-source snow-cover model SNOWPACK. He identified the need for a revised snow classification, organised a working group to undertake this and was lead author for the glossary 'The International Classification for Seasonal Snow on the Ground' prepared by the UCCS-IACS Working Group on Snow Classification and published in 2009 by UNESCO.



Charles warrants appointment as an Honorary Member of IACS for his tireless efforts for IACS and IUGG. He was instrumental in establishing and hosting the early version of the IACS website. He also contributed significantly to the major overhaul of the IACS statutes and by-laws in 2019. His efforts include mentoring and bringing in institutional memory for his two successors as IACS president so far (Regine Hock and Liss M. Andreassen) and have been invaluable. He also hosted the IACS bank account in Switzerland for the 8-year term when Andrew Mackintosh was Secretary General (SG), and he provided very strong scientific and administrative oversight of Secretary General duties, assisting Andrew into his role and also Richard Essery, the current SG.

Charles' combined efforts over a very long period for IACS have been remarkable, and he is one of just a few individuals to whom IACS owed much during its formative years. IACS is proud to welcome Charles as an Honorary Member for everything he has done to promote cryospheric sciences and best practices both within and outside IACS.

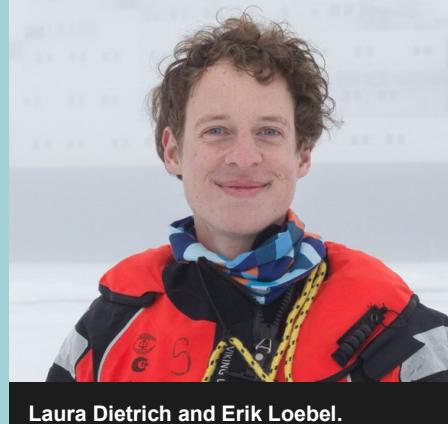
IACS awardees - Graham Cogley award

The award was established in memory of Graham Cogley and recognizes excellence in glaciological research by early career scientists. The award is generously sponsored by the Cogley family for a period of 20 years, and is shared between IACS and the International Glaciological Society (IGS). The awardees receive a certificate and a cash prize of CAD 500 each. Every other year the award is given by IACS to two students to recognize an oral and a poster presentation of exceptional quality at an IACS Assembly. At IUGG 2023 the awardees were:

Laura Dietrich (University of Bergen, Norway) for her outstanding oral presentation: "Surface snow fractionation during snow-atmosphere humidity exchange alters annual mean climate signal in ice core records".

Erik Loebel (Technische Universität Dresden; Germany) for his outstanding poster presentation: "Calving front monitoring at sub-seasonal resolution: a deep learning application reveals new insights into the dynamics of Greenland outlet glaciers".

IACS judges were Christine Hvidberg (chair), Anais Orsi and Sophie Nowicki. For the first time IACS sought audience nominations for the Graham Cogley award. We thank the audience and chairs for all the nominations we received that helped the judges in their decision making.





Hands-on experience of students from the University of Bremen and AWI, Germany, with a dying glacier: after the record summer season of 2022, a circular collapse feature of a subglacial channel started to develop on the retreating tongue of Vernagtferner, Ötztal Alps, Austria. By now the feature has a depth of roughly 10 meters and a diameter of 80 m. It is expected that the collapse will further extend laterally and eventually decouple the lower part of the flat tongue from the remaining part of the glacier, resulting in a large dead ice body. See [webcam photos Vernagtferner](#).
 Photo: Olaf Eisen, AWI, July 2023

New members of the GTN-G advisory board 2023-2027

The Global Terrestrial Network of glaciers (GTN-G) is a framework for internationally coordinated monitoring of glaciers jointly run by the the US National Snow and Ice Data Center (NSIDC) in Boulder, the Global Land Ice Measurements from Space (GLIMS) initiative, and the World Glacier Monitoring Service (WGMS). The IACS Division Head for Glaciers is always the chair of the GTN-G Advisory Board and Mohd Farooq Azam will now be the new chair. IACS and GTN-G has renewed the members of the advisory board that will serve for the period 2023-2027. Fanny Brun and Ben Marzeion will continue from the 2019-2023 board. We thank outgoing members Gwenn Flowers (chair), Stephen Briggs, Alex Gardner and Pierre Pitte for their service to GTN-G.



New Glacier division head Mohd Farooq Azam.



Members of the GTN-G Advisory board 2023-2027: Ben Marzeion, Fanny Brun, David Rounce, Hrafnhildur Hannesdottir, Nicolas Cullen and Anil Mishra.

About IACS

The International Association of Cryospheric Sciences (IACS) is a constituent Association of the International Union of Geodesy and Geophysics (IUGG).

IACS promotes and sponsors workshops, symposia and educational activities.

IACS has targeted working groups, joint commissions and bodies on cryospheric topics.

IACS offers free individual membership: www.cryosphericciences.org

The IACS newsletter is issued 2-4 times a year.