

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



IACS

International Association
of Cryospheric Sciences

IACS NEWSLETTER

February 2024

Call for symposium proposals BACO-25

The International Association of Cryospheric Sciences cordially invites you to submit symposium proposals for the Busan IAMAS-IACS-IAPSO Joint Assembly 20215 (BACO-25) until 1 March 2024.

BACO-25 (<http://www.baco-25.org/>) will be held from 20-25 July 2025 at the Busan Exhibition and Convention Center (BEXCO) in Busan, Republic of Korea. The six-day event will bring together atmosphere, cryosphere and ocean scientists from around the globe to participate in scientific presentations and discussions, exchanges of information, and international earth science cooperation. Proposals for individual symposia are invited on topics within the remits of the International Association of Meteorology and Atmospheric Sciences, the International Association of Cryospheric Sciences and the International Association for the Physical Sciences of the Oceans and for joint symposia concerning interactions between two or three of the atmosphere, cryosphere and ocean.



Busan city with its shoreline.
Photo by Minku Kay on Unsplash.

See: <https://cryosphericsscience.org/baco-25/> for details on symposium proposals

Reducing the carbon footprint of the IACS webpage

Every year a vast amount of energy is consumed by the internet. Estimates vary, but in 2020, between [2-4](#) % of global greenhouse gasses originated from the information and communication technology sector. This number is on track to rapidly increase over the coming decades. As you look at a page, data is being transferred to and from servers to produce the image you see. The more information is transmitted, the more energy is consumed. The global average is 0.8g of CO₂ produced per page view. This is not much for a single view, but with billions of devices visiting websites daily, this amounts to enormous emissions.

IACS has committed to reducing the carbon footprint of the organisation. A step on the way to meet this goal has been to reduce the energy consumption of the IACS website. This was done by simplifying the layout of the webpage, changing images to efficient formats, removing redundant content and other smaller measures. At the outset, the homepage consumed more energy than 54% of webpages globally. After the measures were implemented the webpage consumes less energy than 94% of webpages globally. 0.06g of CO₂ are emitted per page view. The results can be seen in the Website Carbon Calculator: <https://www.websitecarbon.com/website/cryosphericsscience-org/>. This is only an estimate, as there are many factors that influence how much CO₂ will be released when any one person visits a website, such as your local energy source, the energy source of the server, screen brightness, etc. Still, with an efficient website, the energy consumption will be lower. Many of the measures to increase the website efficiency were fortunately simple to implement, meaning that wide adoption should be possible and encouraged.

Girls* on Ice expedition to Mount Ruapehu January 2024

On January 15th ten young women from all over New Zealand met in Wellington to begin the inaugural Girls* on Ice expedition to Mount Ruapehu, New Zealand. The hand selected group of budding explorers, artists and scientists were accompanied by three science instructors from Victoria University of Wellington, a visiting artist from the U.S.A and an outdoor guide. Over the eight days on Mount Ruapehu the participants were taught about the science of snow, glaciers and volcanoes, conducted field based research projects and learnt how to use art as a means to observe and understand the natural landscape. Upon returning to Wellington, the participants shared their experiences, scientific research and art projects with family, friends and University staff. The expedition was a huge success, with the participants departing from the experience with greater self-confidence, long-lasting friendships and a new appreciation for the natural environment. The Girls* on Ice program extend their sincere thanks to IACS for supporting this tuition-free expedition.

(Report by Alanna Alevropoulos-Borrill)



Left photo: Expedition team hiking up the Whakapapa Ski Field captured by Alanna Alevropoulos-Borrill.
Right photo: Participants conducting their snow research captured by Rebekah Parsons-King.

IACS Annual Bureau Meeting 2024

IACS plan to hold this year's annual Bureau meeting online and over two time zones on **26 June**. IACS working groups, joint commissions, joint bodies, and standing groups should submit their annual reports by **12 June** to their IACS **contact / liaison**. All reports will be available on the IACS homepage after the meeting.

IACS working groups: Delineation of glaciers, ice sheets, and ice sheet basins: **Sophie Nowicki**
Randolph Glacier Inventory (RGI) and its role in future glacier monitoring and GLIMS: **Mohd Farooq Azam**
Regional Assessments of Glacier Mass Change (RAGMAC): **Mohd Farooq Azam**

Standing groups: Glacier And Permafrost HAZards in mountains (GAPHAZ): **Lauren Vargo**
Global Terrestrial Network for Glaciers (GTN-G)/WGMS/GLIMS/NSIDC: **Mohd Farooq Azam**

Joint commissions: IACS-IAG Commission on Cryospheric Deformation: **Regine Hock**
IACS-IAPSO Commission on Ice-Ocean Interactions: **Sophie Nowicki**
IACS-IAVCEI Commission on Volcano-Ice Interactions: **Andrew Mackintosh**

Joint body: The status of mountain snow cover: **Rebecca Mott**

The international year of glaciers' preservation

The Intergovernmental Hydrological Programme (IHP) of UNESCO plays a key role, as a platform for scientific networking and cooperation, to contribute to assessing and monitoring changes in snow, glaciers, and water resources and as well to propose options for adaptation. In December 2022, United Nations General Assembly adopted the resolution to declare 2025 as the International Year of Glaciers' Preservation, and 21 March of each year as the World Day for Glaciers starting in 2025. The resolution invites UNESCO and WMO to coordinate and facilitate implementation of the International Year and observance of the World Day. UNESCO-IHP and WMO are coordinating with research and scientific institutions, professional organization and UN entities for the preparation processes to develop various activities and to support the implementation of the UNGA resolution on glacier preservation .

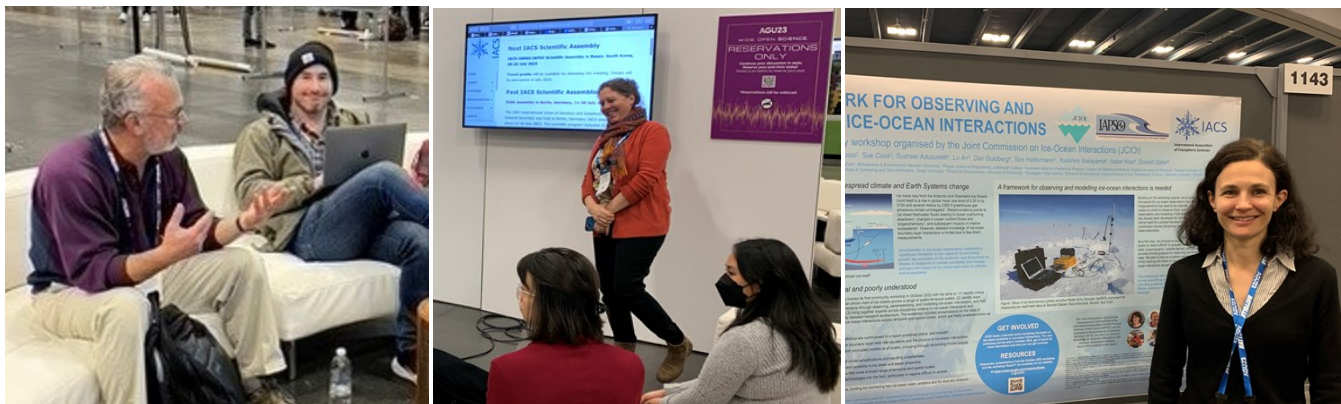
The World Glacier Monitoring Service encourages its network of national correspondents to mark the World Day of Glaciers in 2025 with a joint press conference. IACS plans to mark the event at our Busan 2025 Assembly.



Ann Windnagel contemplates the Arapaho Glacier (Colorado, USA). Photo by Bruce Raup.

IACS at the Fall AGU meeting 2023

Members of IACS leadership attended the annual American Geophysical Union Fall Meeting (AGU23) in San Francisco, California, and engaged the community in several ways. The IACS Ice Sheet Division hosted a “pod”, where IACS activities and opportunities were discussed with other attendees of the AGU23 meeting. Although the focus of these informal discussions was how the ice sheet community could become involved by proposing international Working Groups or Joint Commissions, other topics such as IACS awards were also covered. Upcoming IACS meetings and symposia were also highlighted, as well as the benefits of being an IACS member. Earlier in the week, H el ene Seroussi presented a framework for observing and modeling ice-ocean interactions on behalf of the Joint Commission on Ice-Ocean Interactions (JCIOI). These interactions, and time for questions and answers with IACS and JCIOI leadership, allowed community members to learn more about IACS activities and how to engage or collaborate.



Left and center photo: IACS officers Ted Scambos and Sophie Nowicki presenting IACS and discussing opportunities with participants at the IACS pod at AGU23. Right photo: H el ene Seroussi presenting a poster for the Joint Commission on Ice-Ocean Interactions (JCIOI) at AGU23. Photos: Sophie Nowicki and Mathieu Morlighem.



View of Mount Kilimanjaro in Tanzania and its glaciers sitting atop the volcanic mountain. Kilimanjaro is the highest mountain in Africa with Uhuru peak (5895 m asl.) as its highest point. The inset shows the steep glacier wall seen from the Uhuru peak. All present glaciers in Africa are located in East Africa and are defined as tropical glaciers. In addition to the glaciers of Kilimanjaro, they are located atop the volcanic mountains of Mount Kenya in Kenya and on the Ruwenzori range in Uganda and the Democratic Republic of the Congo. Photos: Liss M. Andreassen, 29 December 2023 and 3 January 2024.

ISC global-science policy work — call for experts

The International Science Council (ISC) calls for experts to participate in global science-policy work who should constitute an ISC roster of experts pertaining to 20 key areas that are prominent on the United Nation's (UN) agenda.



The ISC will draw on this roster to

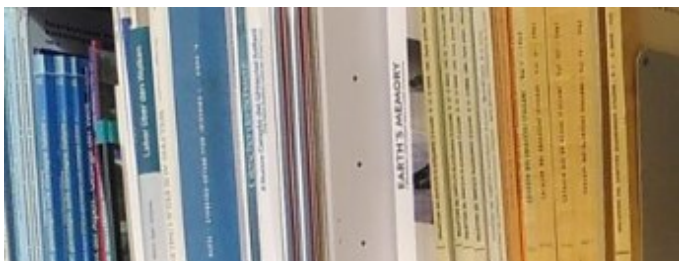
- provide ad-hoc science advice and prepare high-level briefs to the UN secretariat and UN Member States
- develop statements on behalf of the international scientific community
- provide recommendations of speakers for high-level debates and panels for policy-making audiences

If you are interested, please add your name to the roster by completing the [Call for expressions of interest](#) by 29 February.

The WGMS library

The library of the World Glacier Monitoring Service (WGMS) offers a rich collection of glaciology books and journals, including an almost complete Journal of Glaciology series dating back to 1947. Although 2023 was the last printed issue, the library now got 271 out of 276.

If you are in Zurich, Switzerland, you can visit the library at Campus Irchel in room Y25-H-84 and immerse yourself in decades of glaciological research. Read more: [More than 70 years of glacier research in one room | GIUZ Blog \(uzh.ch\)](#)



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.cryosphericosciences.org

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