

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



IACS

International Association  
of Cryospheric Sciences

# IACS NEWSLETTER

December 2024

## BACO2025 - call for abstracts

The program for the IAMAS-IACS-IAPSO Joint Assembly 2025 (BACO2025) held from 20-25 July 2025 in Busan, Republic of Korea, is now released. The full programme can be found and abstract submission is open on the assembly [website](#). Travel grants will be available for attending the meeting. **Abstract and travel grant deadline is 15 February 2025.** IACS also collects relevant info on our [BACO2025 homepage](#).

List of symposia involving IACS:

### IACS:

- C01 Advances in Remote Sensing of the Cryosphere
- C02 Advances in Sea Ice Forecasting and Modelling
- C03 Advances in snow hydrology
- C04 Advances in the modeling of glaciers
- C05 Cryospheric biogeochemical cycles and environmental effects
- C06 Cryospheric hazards and risks: Processes, impacts and adaptations
- C07 Glaciers, glacial lakes and water resources in High Mountain Asia
- C08 Ice sheet modelling
- C09 Increased wet snow conditions under climate change and compound impacts
- C10 Modelling and assessing snow processes and characteristics across various scales
- C11 Observations of glacier and ice sheet change
- C12 Snow2firn
- C13 Societal impacts of changing cryosphere and development of resilience pathways
- C14 Special session celebrating the international year of glaciers' preservation (invited presentations)



Venue of BACO2025 in Busan,  
Republic of Korea.

### IACS/IAMAS:

- JCM01 Coupling Between the Atmosphere and Snow/Ice Surfaces: Observations and Modelling
- JCM02 Cryosphere changes and potential drivers in High Mountain Asia
- JCM04 Recent Advances in Ice Core Science
- JCM03 Permafrost under changing climate

### IACS/IAPSO:

- JCP05 Ice sheet-ocean interactions and impacts
- JCP06 Prospects and Perils of Geoengineering in the Cryosphere and Oceans
- JCP07 Remote Sensing of Sea Ice from Satellite Microwave Measurements and its Applications

### IACS/IAMAS/IAPSO:

- JCMP08 Connecting Polar to lower latitudes: A global perspective on climate change and impacts for Future Earth Strategies
- JCMP09 Ice sheet mass loss: A Driver of Sea Level Rise
- JCMP10 The atmosphere, cryosphere and oceans in Earth System Models

# BACO2025

Busan IAMAS-IACS-IAPSO Joint Assembly

## The international Year of Glaciers' Preservation 2025



2025  
International Year of  
Glaciers' Preservation

The international year of glaciers' preservation (IYGP) is approaching and the [IYGP website](#) was launched in November. Several events are planned for next year. The World Glacier Monitoring Service (WGMS) collects a list of national and international events on [the WGMS website](#).

On 21 January the IYGP will be launched and on 21 March the World Glacier day will be celebrated for the first time. The IYGP is co-chaired by UNESCO and the World Meteorological Organization (WMO). IACS is partner organization. IACS president Liss Andreassen and WGMS director Michael Zemp are members of the IYGP Advisory Board. IACS will together with UNESCO and WMO mark the IYGP with a special session on BACO2025. The IYGP also marks the start of the 'Decade of Action for Cryospheric Science 2025-2034', recently adopted by the United Nations to address the urgency of understanding, monitoring and mitigating the melting of the cryosphere in the face of the climate crisis.

### GLIMS Tracks Extinct Glaciers

Over the last few decades, many glaciers have been shrinking to snowfields or disappearing altogether. The GLIMS (Global Land Ice Measurements from Space) initiative, which maps glaciers globally through time, now tracks "extinct" glaciers. The GLIMS Glacier Database, a product of the National Snow and Ice Data Center Distributed Active Archive Center (NSIDC DAAC), has been augmented to store the estimated date of disappearance of glaciers known to have existed within the past ~100 years. A new layer has been added to the GLIMS Glacier viewer (an interactive map for browsing and downloading GLIMS data) to show the locations of these glaciers. Downloaded records of extinct glaciers have a value of "gone" in the "glacier status" (glac\_stat) metadata field, enabling offline analysis of trends over geographic regions.

GLIMS currently records the extinction of 156 glaciers. Work is ongoing to make this new subset of GLIMS data more complete. We welcome information on extinct glaciers in your region of expertise.

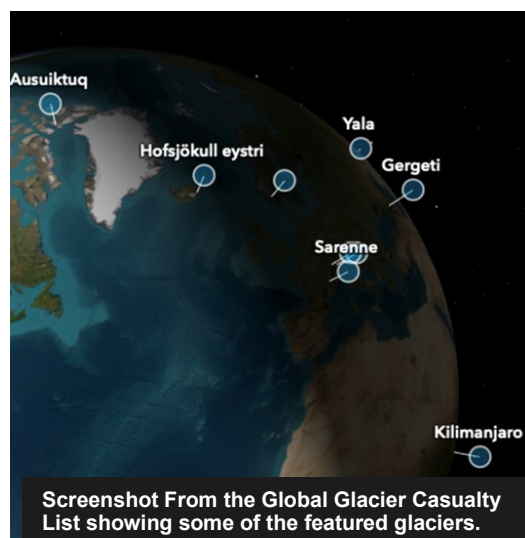
GLIMS Glacier Viewer: <https://www.glims.org/maps/glims>

*Report by Bruce Raup*

### The Global Glacier Casualty List

Some of the glaciers that have disappeared in recent years have names and have great local cultural and economic significance. The [Global Glacier Casualty List](#) is a new platform designed to tell their stories. Combining scientific information, data visualization and cultural storytelling, the GGCL focuses on glaciers that have disappeared within the past twenty years and those that are projected to disappear within the next twenty years. At the rate the world is warming now, the truth is that all glaciers are endangered. The GGCL is a contribution to documenting the full human impact of the loss of glaciers and its success will depend on your help. We invite scientists, civil society organizations, government representatives and community leaders from the world over to join us in sharing the stories of glaciers near to your lives and your hearts.

The GGCL platform was founded in 2024 through a collaboration between Rice University, the University of Iceland, the Iceland Glaciological Society, the World Glacier Monitoring Service and UNESCO.



Screenshot From the Global Glacier Casualty List showing some of the featured glaciers.

*Report by Dominic Boyer*

## International Symposium on Geomatics, Remote Sensing, and Climate Change in the Arctic, Antarctica, and High Mountain Asia

From September 25-27, 2024, the “International Symposium on Geomatics, Remote Sensing and Climate Change in the Arctic, Antarctica and High Mountain Asia” was held at Tongji University in Shanghai, China. More than 100 scholars from different countries gathered together to discuss the latest trends, new theories, methods and achievements in related fields. The symposium was hosted by Center for Spatial Information Science and Sustainable Development Applications and College of Surveying and Geo-informatics, Tongji University.

The symposium was split into seven sessions including ocean-atmosphere Interactions in the Arctic and Antarctica, Sea Ice Change and Mountain Glacier Changes, Monitoring and Modeling. During the symposium, the participants engaged in in-depth academic exchanges and conducted 56 oral academic presentations (including 5 keynote speeches) and 20 poster presentations.

IACS was one of the sponsors of the symposium.

*Report by Gang Qiao*



Symposium opening and poster session

## Juneau Icefield Research Program 2024

Not many research projects have been going since 1946 – but once again, in summer 2024, researchers converged on the Juneau Icefield to learn from its intriguing ice and continue its long-term dataset and educational programs. To that end, the 2024 Juneau Icefield Research Program (JIRP) welcomed 32 students, 13 staff, 24 teaching faculty, and another two dozen researchers. Thanks to IACS support, multiple students from underrepresented backgrounds received tuition reductions which facilitated their participation.

The JIRP academic curriculum targets glacier systems science and field skills training for mid-level undergraduate students, but it is also inclusive of early graduate level students and advanced high-school students. This eight-week field season is based around a ski traverse of the Juneau Icefield in Southeast Alaska and northern British Columbia. Expedition members stay in permanent field camps while students learn safety skills to live and work on the glaciers, introductory/intermediate glacier science, and how to conduct field research. Along the way students design and carry out their own research projects.

In addition, unique for this year, JIRP was able to host a Tlingit culture camp; a couple facilitators were able to stay for the undergraduate program and share lessons from the Tlingit language camp share with the student group.

*Report by Allen Pope*

## IACS and IUGG at American Geophysical Union (AGU)

Going to AGU? Come and join us at **Pod 3 in Poster Hall B-C from 11:30 to 12:00 on Wednesday 11 December** to mingle and find out about the latest IACS activities.

Learn more about IUGG, the Association Scientific Assemblies 2025, and IUGG General Assembly 2027 at the **IUGG exhibition booth (No. 347)** at AGU.



# Volcano-Ice Interactions Commission

The Volcano-Ice Interactions Commission (VIIC) is a joint commission of the International Associations of Cryospheric Sciences (IACS) and of Volcanology and Chemistry of the Earth's Interior (IAVCEI). The VIIC is tasked with highlighting and promoting research on the interactions between volcanism and the cryosphere in any shape or form, i.e., glaciovolcanism. Glaciovolcanic processes and products encode important information on the current and past states of glaciers and volcanoes, and may help us better understand future hazards and the effects of a warming climate. The study of volcano-ice interactions is therefore of both scientific and societal value, calling for continued interest and collaborations within the scientific community.

The VIIC is now heading into its second leadership term since becoming a joint commission, see photos below. We have several upcoming events, open to everyone, that may be of interest: (1) online workshop on glaciovolcanism 13-15 Jan 2025; (2) in-person workshop in Iceland 18-25 May 2025; (3) glaciovolcanism session at the IAVCEI Scientific Assembly 29 Jun-4 Jul 2025 - abstract deadline 20 December 2024; (4) online seminar series. For further information on the events and to become involved with the VIIC see our [website](#) or engage with our accounts on X (@volc\_ice) or Bluesky (@volc-ice.bsky.social).

*Report by Tryggvi Unnsteinsson*



Representing IAVCEI: Linda Sobolewski (co-chair, University of Iceland), Iestyn Barr (vice-chair, Manchester Metropolitan University),



Representing IACS: Maximilian Van Wyk de Vries (co-chair, University of Cambridge), Tryggvi Unnsteinsson (vice-chair, IACS; University of Aberdeen).

## IACS Early Career Scientist Award 2025

The deadline for submitting nominations for the IACS Early Career Scientist (ECS) Prize is **13 January 2025**.

The award is given for a scientific paper. Papers must be focused on a cryospheric topic represented by any of the current IACS divisions. The 2024 awardees will be recognized at the BACO25 Joint Assembly in July 2025.

[Guidelines & nomination form](#) is found on the IACS homepage.



A snow fall covered Bern (555 m asl.), Switzerland on 21 November, 2024. Photo. Liss M. Andreassen

## 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](http://www.cryosphericosciences.org)

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