



INTERNATIONAL GLACIOLOGICAL SOCIETY

International Symposium on
Snow



Davos Congress Centre
Davos, Switzerland
25–30 September 2022

FIRST CIRCULAR
February 2022
<https://www.igsoc.org/symposia/2022/davos2022/>

The International Glaciological Society will hold an International Symposium on 'Snow' in 2022. The symposium will be held at the Davos Congress Centre, Davos, Switzerland on 25–30 September 2022.

THEME

Snow is a complex material, transient and of singular beauty. While our understanding has improved over the recent decades, it still offers numerous scientific challenges. The snow cover plays a crucial role in the climate of cold regions – from high latitudes to high elevations – and impacts societies and their activities. Because of its high climate sensitivity, snow is declining, with far-reaching consequences for the environment and humanity.

Given these prospects and improvements in advanced technologies for monitoring and modelling, we announce a symposium focused on understanding snow and its impacts on the environment, people and infrastructure.

Snow will be examined at all scales – from the microscale of snow structure to the global scale.

This meeting seeks to address various challenges by bringing together scientists from diverse communities engaged in research on snow. We welcome snow-related contributions, including ground-based observations, remote sensing, laboratory experiments, numerical modelling, data compilations and analyses, risk management, water resources, climate and social impact assessment.

SUGGESTED TOPICS

These include (but are not limited to):

- 1. Observing and modelling of snow and its changes at different scales:** Snow microstructure; distribution and variability of snow cover, snow depth and SWE; Snow stratigraphy; modelling seasonal snow, including coupling of cryosphere models with regional climate models, and intercomparison of models; snow and climate – projections and forecasts of seasonal snow under a changing climate, role of meteorological extreme events
- 2. Snow physics and chemistry:** heat and mass transfer in snow, snow metamorphism; physical and mechanical properties of snow; snow chemistry
- 3. Snow as a component of climate,** including snow–atmosphere interactions and snow–ground interaction
- 4. Remote sensing of seasonal snow and avalanches** from local to global scale, applying platforms from ground-based to satellite, including snow on sea and lake ice, snow and avalanche mapping
- 5. Snow in motion and snow engineering:** snow avalanches – formation, including stability evaluation, avalanche forecasting and warning; snow avalanches – dynamics, including avalanche impact, mitigation and hazard mapping; snow tribology, including winter sports and mobility on snow; snow loads on structures



6. Snow and biosphere, including snow-vegetation/forest interactions

7. Snow hydrology, including snow distribution, snow melt and runoff.

PROGRAM

True to tradition, the symposium will include oral and poster sessions interlaced with ample free time to facilitate interactions between the participants. Additional activities include an opening icebreaker, a banquet dinner and an excursion during the mid-symposium afternoon break.

We offer participants the opportunity to organize small workshops on specific topics, e.g. drone measurements of snow depth, stability tests, new methods to measure snow properties. If you are interested in conducting such a workshop, please contact the Science Steering and Editorial Committee.

ABSTRACT AND PAPER PUBLICATION

Participants who wish to present a paper (oral or poster) at the Symposium will be required to submit an abstract by 28 May 2022. Accepted abstracts will be posted on the Symposium's website. The Council of the IGS will publish a thematic issue of the *Annals of Glaciology* on topics consistent with the Symposium themes. Participants are encouraged to submit manuscripts for this *Annals* volume.

VENUE

The SLF is an interdisciplinary research and service centre located in Davos. It is part of WSL, the Swiss Federal Institute for Forest, Snow and Landscape Research, and therefore belongs to the ETH domain.

The SLF is well known worldwide as a leading research institute in its field. Around 150 staff study snow, atmosphere, mass movements, permafrost and mountain ecosystems and translate their knowledge into innovative products for practical use. Within the framework of the CERC (Climate Change, Extremes, and Natural Hazards in Alpine Regions Research Centre), the SLF investigates the effects of climate change on extreme events and natural hazards in mountain regions.

The SLF also provides various services, including the Avalanche Bulletin, advice on avalanche protection measures, and expert opinions on avalanche accidents, and is active in the development of warning systems for natural hazards.

The Symposium will take place in the Davos Congress Centre, centrally located between Davos Dorf and Davos Platz. The Congress Centre offers a selection of perfectly organized rooms, equipped with top-of-the-line presentation technology.

LOCATION

Davos is located 1560 m a.s.l. in the heart of the Canton of Grisons in the eastern Swiss Alps. September temperatures average highs of 14°C and lows of 4°C. The town of Davos is easily accessible by train. It is about 130 km southeast of Zurich from where the train journey takes about 2½ hours. There is a major international airport in Zurich and right at the airport you can board a train (changes required at Zurich main station and Landquart).

SYMPOSIUM ORGANIZATION

Magnús Már Magnússon (International Glaciological Society)

LOCAL ORGANIZING COMMITTEE

Jürg Schweizer, Martin Schneebeli, Nadine Salzmann, Marion Hofmänner, Cornelia Accola

SCIENCE STEERING AND EDITORIAL COMMITTEE

Martin Schneebeli, Nadine Salzmann, Michael Lehning, Yves Bühler, Tobias Jonas, Henning Löwe, Alec van Herwijnen, Marcia Phillips, Perry Bartelt, Charles Fierz, Betty Sovilla, Christoph Marty, Chris Pielmeier, Michael Bründl (SLF Davos), Jan-Thomas Fischer, Michaela Teich (BFW Innsbruck, Austria), Ingrid Reiweger, Franziska Koch (BOKU Vienna, Austria), Marie Dumont, Pascal Hagenmüller (CEN, MeteoFrance, Grenoble, France), Nicolas Eckert (INRAE Grenoble), Pascal Haegeli (Simon Fraser University), Karl Birkeland (US Forest Service), Ruzica Dacic (University of Wellington, NZ), Johan Gaume (EPF Lausanne), Ulrich Strasser (University Innsbruck), Hans-Peter Marshall (Boise State University), Alex Langlois (University Sherbrooke, Canada), Chris Derksen (ECCC, Canada), Shichang Kang (Northwest Institute of Eco-Environment and Resources, China), Teruo Aoki (National Institute of Polar Research, Tokyo, Japan), Juha Lemmetyinen (Finnish Meteorological Institute, Finland), Rune Engeset (NVE, Norway), Maurine Montagnat (Université Grenoble Alpes), Stefan Margreth (SLF, Davos), Nick Rutter (Northumbria University, UK)

FURTHER INFORMATION

If you wish to attend the Symposium, please **register your interest online** at <https://www.igsoc.org/symposia/2022/davos2022/>

The Second Circular will give further information about accommodation, the scientific programme, additional activities, preparation of abstracts and final papers. Members of the International Glaciological Society, as well as all those who have expressed an interest, will automatically receive notification of the Second Circular.

Information will also be updated on the IGS conference website, <https://www.igsoc.org/symposia/2022/davos2022/> as it becomes available. A local website will open later in the year..