# #AGM28 – Alpine Glaciology Meeting 2025

Innsbruck/Austria

Feb 27 – 28, 2025

Welcome to #AGM28, the Alpine Glaciology Meeting 2025 here in Innsbruck, Austria. Over the next two days, we will experience nearly 80 presentations (including posters) showcasing the diverse facets of glaciology, and we are delighted that, once again, many early career scientists have stepped forward to present. We are gathered in the newest building of the University of Innsbruck, the Agnes Heller Haus, which also serves as the venue for the poster exhibition and our Get2Gether. We are excited for another excellent and vibrant platform for exchange, that #AGM has become over the years and wish you a wonderful and enjoyable stay at #AGM28 in Innsbruck.

## ---------- SCHEDULE OVERVIEW ----------

| Thursday, Feb 27 | Friday, Feb 28 |
|---|---|
| Registration<br>8:00 – 9:00 | |
| Opening by Scientific Committee<br>09:00 – 09:15 | **Session V: Processes**<br>09:00 – 10:15 |
| **Session I: Global Glacier Changes**<br>09:15 – 10:15 | |
| Coffee Break<br>10:15 – 10:45 | Coffee Break<br>10:15 – 10:45 |
| **Session II: Regional Changes in Snow or Ice**<br>10:45 – 12:00 | **Session VI: Subsurface Processes**<br>10:45 – 11:45 |
| Lunch<br>12:00 – 13:00 | Lunch<br>11:45 – 12:45 |
| **Poster Session 1**<br>13:00 – 14:30 | **Poster Session 2**<br>12:45 – 14:15 |
| **Session III: Monitoring**<br>14:30 – 15:45 | **Session VII: Modelling**<br>14:15 – 15:30 |
| Coffee Break<br>15:45 – 16:15 | Coffee Break<br>15:30 – 16:00 |
| **Session IV: Remote Sensing**<br>16:15 – 17:30 | **Session VIII: Modelling, Paleoclim. & Ecology**<br>16:00 – 17:00 |

## ---------- PRESENTER LIST ----------

**Thursday, Feb 27**

| # | Scheduled | Presenter | Title |
|---|---|---|---|
| 0 | 09:00 – 09:15 | Organizing Committee | Opening, Welcoming Remarks, Logistics & Details |
| 1 | 09:15 – 09:30 | Magnus Mar Magnusson | Greetings from the IGS |
| 2 | 09:30 – 09:45 | Michael Zemp | Into the International Year of Glaciers' Preservation 2025 – Perspectives from the World Glacier Monitoring Servics |
| 3 | 09:45 – 10:00 | Samuel Cook | Global ice thickness inversions using deep learning |
| 4 | 10:00 – 10:15 | Lilian Schuster | Impact of global warming on glaciers until 2300: Figures for the State of the Cryosphere reports 2023 and 2024 |
| 5 | 10:45 – 11:00 | Roberto Sergio Azzoni | Belvedere, 1951–2023: A Glacier Odyssey |
| 6 | 11:00 – 11:15 | Andrea Securo | The Glaciers of the Dolomites: last 40 years of melting |
| 7 | 11:15 – 11:30 | Tiziana Lazzarina Zendrini | A century of late-summer snowline fluctuations in the Ortles-Cevedale Group: a reconstruction from historical photos |
| 8 | 11:30 – 11:45 | Cecilia Delia Almagioni | Snow cover variability and trends over Karakoram, Western Himalaya and Kunlun Mountains: Insights from MODIS (2001–2024) and Reanalysis Data |
| 9 | 11:45 – 12.00 | Valerie Reppert | Climate Signals from Neumayer, Coastal Dronning Maud Land, Antarctica: A 33-Year Statistical Analysis of Snow Accumulation in a Stake Farm |
| 10 | 14:30 – 14:45 | Matthias Huss | Swiss glacier monitoring: New approaches from the local to the regional scale |
| 11 | 14:45 – 15:00 | Joel Harper | In Situ Measurement of Meltwater Infiltration Mechanisms in Snow and Firn |
| 12 | 15:00 – 15:15 | Anna Siebenbrunner | Glacier Monitoring on the Fly: Quantifying Ice Volume and Analyzing Subglacial Topography with UAV-borne GPR |
| 13 | 15:15 – 15:30 | Fanny Brun | Glacier mass balance monitoring, research questions and capacity building in Nepal |
| 14 | 15:30 – 15:45 | Stefania Federici | Advancing Microplastic Research: European Networking Opportunities |
| 15 | 16:15 – 16:30 | Amaury Dehecq | Impact of DEMs spatial resolution on glacier geodetic mass balance |
| 16 | 16:30 – 16:45 | Luc Beraud | An improved processing of ASTER elevation time series in High Mountain Asia to study glacier surge dynamics |
| 17 | 16:45 – 17:00 | Jonathan Fipper | Drivers and impacts of the vertical structure of the troposphere at Villum Research Station, Northeast Greenland |
| 18 | 17:00 – 17:15 | Dagmar Brombierstäudl | Quantifying aufeis volumes in Central Ladakh, India: Insights from satellite and terrestrial imagery |
| 19 | 17:15 – 17:30 | Moritz Koch | The state and fate of Glaciar Perito Moreno, Patagonia |

## PRESENTER LIST

**Friday, Feb 28**

| # | Scheduled | Presenter | Title |
|---|---|---|---|
| 1 | 09:00 – 09:15 | Lindsey Nicholson | The second Hintereisferner Experiment HEFEX II |
| 2 | 09:15 – 09:30 | Leo Schlagbauer | Foehn winds on McCall Glacier, Alaska: Identification and impacts |
| 3 | 09:30 – 09:45 | Robert Peal | The influence of westerly moisture transport events on Kilimanjaro's glaciers |
| 4 | 09:45 – 10:00 | Marie Schröder | Turbulent Fluxes in a Land Terminating Vertical Ice Cliff |
| 5 | 10:00 – 10:15 | Christoph Mayer | Snow cover, glacier size and melt; runoff variability from a medium size alpine glacier |
| 6 | 10:45 – 11:00 | Christophe Ogier | Water pockets in Alpine glaciers: what are they, why do they form, and how do they burst? |
| 7 | 11:00 – 11:15 | Leonardo Stucchi | Evaluation of non-conductive heat transfer in supraglacial debris of Belvedere Glacier, Italy. |
| 8 | 11:15 – 11:30 | Ian Arburua Delaney | Variations in subglacial sediment transport capacity with respect to water discharge |
| 9 | 11:30 – 11:45 | Guillaume Jouvet | Revisiting Mercanton's Visionary Experiment on the Rhône Glacier with a Numerical Model |
| 10 | 14:15 – 14:30 | Christoph Posch | Comparative analysis of mass balance estimates at Greenland's most studied peripheral glacier |
| 11 | 14:30 – 14:45 | Franziska Temme | The climatic imprint on recent glacier evolution in the Cordillera Darwin Icefield, Tierra del Fuego |
| 12 | 14:45 – 15:00 | Audrey Goutard | Impact of surface liquid water retention on glacier mass balance: application to Mera Glacier (Nepal) using SURFEX-ISBA-Crocus |
| 13 | 15:00 – 15:15 | Marin Kneib | Combined field measurements for quantifying the dynamics of an on-glacier avalanche deposit and its underlying processes |
| 14 | 15:15 – 15:30 | Oskar Hermann | Translating Observation Uncertainty into Model Calibration unsing the Ensemble Kalman Filter |
| 15 | 16:00 – 16:15 | Martin Rückamp | Future retreat of Great Aletsch Glacier and Hintereisferner – an East-West comparison |
| 16 | 16:15 – 16:30 | Patrick Schmitt | Deglaciation in western Austria: Perspectives from observations and modeling |
| 17 | 16:30 – 16:45 | Azzurra Spagnesi | Weißseespitze glacier (Eastern Rhaetian Alps): a 6 kyr paleoclimatic and paleoenvironmental reconstruction |
| 18 | 16:45 – 17:00 | Gilda Varliero | Viral Dynamics in Glacier Microbiomes: Insights from the Rhone Glacier |

## POSTER LIST

**Thursday, Feb 27 13:00 – 14:30**

| # | Presenter | Title |
|---|---|---|
| A1 | Blanka Barbagallo | HLSL30 vs. Landsat 8: A Cross-Comparison of Albedo Products in the Karakoram Range |
| A2 | Andreas Henz | Integration of high-resolution glacier modelling with geomorphological data for the reconstruction of past glacier fluctuations in the European Alps |
| A3 | Patrick Schmitt | Goodbye Glaciers!? – A hiking signpost project to raise glacier loss awareness |
| A4 | Lea Hartl | Decadal overview of mass balance at five Austrian glaciers and 2023/24 results |
| A5 | Michele Di Biase | First inventory of the paraglacial activity in the Venosta Valley (Italy) in relation to the recent glacial recession |
| A6 | Giorgia Dassie | On the release of microplastics from UHMWPE ski bases to snow. A spectroscopic analysis. |
| A7 | Davide Fugazza | What influences Algal blooms on the Greenland Ice Sheet? Insights from field work and satellite data at Qaanaaq glacier. |
| A8 | Anees Ahmad | Fusion of Sentinel-1 interferometric coherence and Sentinel-2 MSI for debris-covered glacier boundary delineation |
| A9 | Celine Walker | Global catalogue of future glacier lakes using novel bed topography |
| A10 | Alessia Spezza | Intercomparison of gauge based, reanalysis and satellite gridded precipitation datasets in High Mountain Asia: insights from observations and runoff data. |
| A11 | Marcus Gastaldello | Spatio-temporal Degradation of Alpine Cold Firn in the 21st Century |
| A12 | Jan Niklas Richter | A Remote-Only Approach to SEB Model Calibration: First Insights from Hintereisferner Glacier |
| A13 | Leonora Seiler | Reconstruction of rockfall activity from supraglacial deposits on Witenwasserengletscher, Switzerland and its relation to climatic factors |
| A14 | João Gomes Ilha | Unveiling Amazon proxies in high-mountain environments, the Quelccaya Ice Core, Peru |
| A15 | Thorsten Seehaus | Gaussian Process Regression for ICESat-2 Point-Cloud Interpolation |
| A16 | Akash Patil | Investigating firn density and accumulation history in the Aletsch glacier's accumulation area using Ground Penetrating Radar |
| A17 | Giovanni Kappenberger | From a glacier to a lake: the icebergs of the Geren Pass. |
| A18 | Vijaya Kumar Thota | Historical glacier elevation changes in southwest Antarctic Peninsula |
| A19 | Sonia Morgese | Sensitivity analysis of energy balance equation on a debris covered glacier. The case of Belvedere Glacier, Italy. |
| A20 | Bernhard Hynek | Accumulation by avalanches as a significant contributor to the mass balance of a peripheral glacier of Greenland |

## ---------- POSTER LIST ----------

**Friday, Feb 28 12:45 – 14:15**

| # | Presenter | Title |
|---|---|---|
| **B1** | Maria Heinrich | Multi-sensor satellite observations of snow area extent in mountain regions |
| **B2** | Michael Zemp | The second Glacier Mass Balance Intercomparison Exercise 2025–26 |
| **B3** | Martina Lodigiani | Remote Sensing Applications for Monitoring Periglacial Environments: Insights from the “Agile Arvier” Project |
| **B4** | Mamta K C | Comparing neural operator based surrogate models on glacier dynamics prediction. |
| **B5** | Theresa Dobler | Detailed velocity map and long-term glacier surface velocities of the slow-flowing Vernagtferner in the Austrian Alps |
| **B6** | Diego Pacheco Ferrada | Glacier mapping using Deep Neural Networks in the Tropical Andes |
| **B7** | Annelies Voordendag | Seasonal variations in the three-dimensional velocities of the ice lollipop at Hintereisferner (Austria) |
| **B8** | Francesco Ioli | Potentials and challenges of free SPOT 5 stereo imagery archive to derive glacier elevation changes in the Alpine region |
| **B9** | José Manuel Muñoz Hermosilla | Initializing a glacier model for simulations of debris transport: A case study of the Oberaletsch Glacier |
| **B10** | Daniel Farinotti | Traces of an englacial reservoir? First results from a helicopter-borne GPR survey at Glacier de la Bonne Pierre, France |
| **B11** | Paolo Perret | Integrating radar and multi-sensor approaches for debris-covered glacier studies: insights from the Forca glacier (Italy) |
| **B12** | Florian Hardmeier | A novel particle tracking approach to model debris-covered glaciers in the Instructed Glacier Model (IGM) |
| **B13** | Evan Miles | Kon Chukurbashi: prospective for a high elevation ice core in the Pamir mountains |
| **B14** | Jorge Andres Berkhoff Leal | Mapping glacier ice thickness in Chile |
| **B15** | Gabriele Schwaizer | Changing ablation patterns on glacier in the Alps during the melting seasons 2015 – 2023 observed by means of Sentinel-2 data |
| **B16** | Andrea Scolamiero | SAR Wet Snow in High Mountains |
| **B17** | Anne Hartig | Comparison of glacier surface classes in the Ötztal Alps from the openAMUNDSEN model and from remote sensing data |
| **B18** | Alexander Raphael Groos | A high-resolution debris thickness map for the Kanderfirn in the Swiss Alps derived from UAV-based infrared thermography |
| **B19** | Jules Bredon | Glacial response to modern climate change through a transect of several sediment cores, the case of Qalerallit Imaa fjord, southwest GrIS |
| **B20** | Astrid Lambrecht | Combining glaciological field surveys, REmote sensing and regional Climate modelling to Analyse the variability of accumulation in the Pamir mountains (RECAP) |
| **B21** | Nadine Salzmann | Initiating permafrost research in Bhutan: strategy and first results from the CRYO-SPIRIT project |