



23. Alpine Glaciology Meeting

Innsbruck 28 February - 1 March 2019

Programme and Guide

Programme overview

The Alpine Glaciology Meeting 2019 is hosted by the University of Innsbruck. All talks will be given in the Aula in the first floor of the University's main building (CI IN052) at Innrain 52 (see map on page 7). Posters will be presented in the hallway just next to the Aula (format: portrait A0). Since we have an extensive presentation programme and a tight schedule, we kindly ask all speakers to follow the time frame of 12 minutes for presentations plus 3 minutes for questions.

Day 1, 28 February 2019

09:30 - 09:45	Welcome to AGM 2019 in Innsbruck
09:45 - 10:30	talks
10:30 - 11:00	coffee break
11:00 - 12:15	talks
12:15 - 13:30	lunch break
13:30 - 15:00	talks
15:00 - 16:30	poster presentation with coffee
16:30 - 17:45	talks
19:30	conference dinner

Day 2, 1 March 2019

08:45 - 10:00	talks
10:00 - 10:30	coffee break
10:30 - 12:00	talks
12:00 - 13:15	lunch break
13:15 - 14:30	talks
14:30	closing address

Oral presentations – 28 February

09:30 - 09:45	Welcome to AGM 2019 in Innsbruck!
09:45 - 10:00	Magnus Magnusson , International Glaciological Society <i>IGS moving forward and a review of departing colleagues</i>
10:00 - 10:15	Roger Braithwaite , University of Manchester <i>Geography of glacier mass balance</i>
10:15 - 10:30	Michael Zemp , University of Zurich <i>Global glacier mass changes and their contributions to sea-level rise from 1961 to 2016</i>
10:30 - 11:00	Coffee Break
11:00 - 11:15	Daniel Farinotti , VAW ETH Zurich / WSL Birmensdorf <i>A projection of the glacier evolution in the Alps until 2100</i>
11:15 - 11:30	Christian Vincent , University of Grenoble / CNRS <i>A non-linear statistical model for extracting a climatic signal from glacier mass-balance measurements</i>
11:30 - 11:45	Charalampos Charalampidis , Bavarian Academy of Sciences and Humanities (BAW) <i>Mass-budget anomalies and geometry signals of three Austrian glaciers</i>
11:45 - 12:00	Frank Paul , University of Zurich <i>On the disequilibrium response and climate change vulnerability of the mass balance glaciers in the European Alps</i>
12:00 - 12:15	Andreas Bauder , VAW, ETH Zürich <i>On the reanalysis and homogenisation of Swiss glacier length change data</i>
12:15 - 13:30	Lunch Break
13:30 - 13:45	Lenka Prochazkova , Charles University, Faculty of Science, Prague <i>Life in melting mountain snow - a colourful phenomenon</i>
13:45 - 14:00	Daniel Remias , University of Applied Sciences Upper Austria <i>Life on glaciers: ecology of microalgae causing abundantly "grey ice"</i>
14:00 - 14:15	Karen Cameron , Aberystwyth University <i>Unravelling the interconnectivity of glacial microbial communities</i>
14:15 - 14:30	Pascal Bohleber , Heidelberg University <i>Novel Radioargon Dating of Alpine Glacier Ice by Atom Trap Trace Analysis</i>
14:30 - 14:45	Biagio Di Mauro , Earth and Environmental Sciences Department. University of Milano-Bicocca <i>Role of inorganic and organic light-absorbing impurities on the albedo of snow and ice in the European Alps</i>
14:45 - 15:00	Bas Altena , University of Oslo <i>On the origin of ogives and the monitoring of icefalls</i>
15:00 - 16:30	Poster Session with coffee
16:30 - 16:45	Yota Sato , Nagoya University <i>Spatial distribution of ice cliff in Trambau Glacier, Nepal Himalaya</i>
16:45 - 17:00	Fabrizio Troilo , Fondazione Montagna sicura <i>Monitoring of the Grand Croux Centrale Glacier Lake Outburst Flood (Aosta Valley - Italy)</i>
17:00 - 17:15	Mauro Werder , VAW, ETH Zurich <i>Reconstructing 1818 outburst flood of Glacier du Giéto</i>
17:15 - 17:30	Josef Lier , Institute for Interdisciplinary Mountain Research, Innsbruck <i>Determining degree-day factors at the high-altitude firn saddle Colle Gnifetti, Swiss/Italian Alps</i>
17:30 - 17:45	Open discussion and wrap-up
19:30	Conference Dinner at Hotel Sailer (for registered participants only)

Oral presentations – 1 March

08:45 - 09:00	Jenny Turton , FAU, Erlangen-Nürnberg <i>Atmospheric processes and climatology of the 79N glacier, northeast Greenland</i>
09:00 - 09:15	Jeff La Frenierre , Gustavus Adolphus College <i>Recent Evolution of Glacier Termini in the Tropical Andes of Ecuador</i>
09:15 - 09:30	Thorsten Seehaus , University Erlangen Nürnberg <i>Monitoring of glacier changes throughout South America, with a focus on the tropical Andes</i>
09:30 - 09:45	Claudio Bravo , School of Geography, University of Leeds <i>Climatic and meteorological drivers of the glacier responses along the Southern Patagonia Icefield</i>
09:45 - 10:00	Fanny Brun , IGE/Univ. Grenoble Alpes <i>Comparison between eleven years of field mass balance monitoring and six years of geodetic mass balance on Mera Glacier, Nepal</i>
10:00 - 10:30	Coffee Break
10:30 - 10:45	Riccardo Barella , Eurac Research <i>Multi-temporal mosaics from Sentinel-2 time series to map glaciers at the yearly maximum ablation</i>
10:45 - 11:00	Mata Callegari , Eurac Research <i>Combination of remote sensing data and physically based model for glacier mass balance estimation</i>
11:00 - 11:15	Gabriele Schwaizer , ENVEO IT <i>Changing glacier surfaces observed by means of high resolution satellite data</i>
11:15 - 11:30	Adina Racoviteanu , Aberystwyth University <i>Use of Pleiades satellite imagery for sub-pixel mapping of features on the surface of debris-covered glaciers in the Himalaya</i>
11:30 - 11:45	Nico Mölg , University of Zurich <i>Debris cover - Mass Balance - Climate: What drives the long-term evolution of Zmuttgletscher, Switzerland?</i>
11:45 - 12:00	Ben Brock , Northumbria University <i>Recent climatic changes and runoff response from glacierised catchments in central Chile</i>
12:00 - 13:15	Lunch Break
13:15 - 13:30	Hans Oerlemans , IMAU, Utrecht University <i>Modelling of the Tschierva glacier, Oberengadin, Switzerland</i>
13:30 - 13:45	Emmanuel Thibert , Université Grenoble Alpes, Irstea, UR ETGR <i>Surface velocity changes along 3 decades at Laurichard rock glacier (Ecrins range, French Alps) and their link to climatic drivers</i>
13:45 - 14:00	Kazumasa Fujimura , Meisei University <i>Estimation of the current and future water balance of four snowy mountainous basins in Japan</i>
14:00 - 14:15	Marcus Nüsser , South Asia Institute, Heidelberg University <i>From Nanga Parbat to Ladakh - Cryosphere-fed irrigation networks in the north-western Himalaya</i>
14:15 - 14:30	Open discussion and wrap-up
14:30	AGM 2019 closing address

Poster presentations (Thursday, 28 February 3 p.m.)

Suryanarayanan Balasubramanian, University of Fribourg
Artificial Ice Reservoirs

Chunhai Xu, Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences
Geodetically derived seasonal and annual mass balances using a long-range terrestrial laser scanning

David Farias, FAU Erlangen-Nürnberg
A detailed quantification of mass changes in South Georgia Icefield

Cristina Viani, Research Institute for Geo-Hydrological Protection - Italian National Research Council
Freeze-thaw cycles in the rocks of the Bessanese experimental site (Western Alps, Italy)

Simone Gottardelli, Fondazione Montagna sicura
UAV and aerophotogrammetrical surveys used to assess debris-covered ice bodies by DEM differencing

Livia Piermattei, TU Wien
Webcam images for validating and improving snow cover maps from Sentinel data

Kay Helfricht, Institute for Interdisciplinary Mountain Research, Austrian Academy of Science
Calibrated ice thickness estimate for all glaciers in Austria

Marlis Hofer, ACINN - University of Innsbruck
Extending limited in situ mountain weather observations to the baseline climate based on statistical downscaling: does it work?

Philipp Rastner, University of Zurich
Automated mapping of snow cover on glaciers and calculation of snow line altitudes from multitemporal Landsat data

Lindsey Nicholson, ACINN - University of Innsbruck
Eddy covariance measurements and structure of turbulence over debris covered and clean ice

Alexander Kehl, ACINN - University of Innsbruck
Katabatic wind and turbulence on Hintereisferner during HEFEX 2018

Alessandro Cicoira, University of Zurich
Investigating temporal and spatial variability in rockglacier flow velocity

Zora Schirmeister, ACINN - University of Innsbruck
OGGM Edu: a collaborative educational platform about glaciers

Christina Schmid, FAU-Erlangen-Nürnberg
Snowdrift modeling with the Weather Research and Forecasting Model (WRF)

Neil Rosborough, Queen's University Belfast
Using Remotely Sensed Variables to run a Mass Balance Model

Christian Sommer, FAU - Erlangen-Nürnberg
21st century area and elevation changes of glaciers in the European Alps

Markus Weber, TU-M, Photogrammetry and remote sensing
Meteorological measurements along an N-S transect over the main Alpine ridge in the Eastern Alps in the summer of 2018

Helmut Rott, ENVEO IT
Complex Pattern of Mass Losses and Flow Dynamics of Antarctic Peninsula Outlet Glaciers after Larsen Ice Shelf Collapse

Moritz Oberrauch, ACINN - University of Innsbruck
Testing the importance of explicit glacier dynamics for future glacier evolution in the Alps

Larissa Van Der Laan, Bavarian Academy of Sciences and Humanities
Distributed and Point Modelling of Snowpack Liquid Water Content on the Vernagtferner

Johannes Horak, ACINN - University of Innsbruck

Simplified physics based precipitation downscaling for glacierized mountain regions

Johanna Nemec, ENVEO

The CryoPortal: A database for scientific satellite-based cryospheric products and services for snow cover, glaciers and ice sheets

Rebecca Gugerli, University of Fribourg

Evaluation of continuous and autonomous snow water equivalent measurements by a cosmic ray sensor on a Swiss glacier

Davide Fugazza, Università degli studi di Milano

New evidence of glacier darkening in the Ortles-Cevedale group from Landsat observations

Ingomar Glatz, University of Innsbruck

Detailed comparison of the geodetic and direct glaciological mass balances on an annual time scale at Kesselwandferner

Nadine Salzmann, Department of Geosciences, University of Fribourg

Evidence Based Adaptation Planning for DRR and Early Warning System

Claudio Smiraglia, Earth Science Department - University of Milano (IT)

For a better understanding of the glacier evolution and environment: glacier trails around the Italian Alps

Colin Ronald, University of Innsbruck

Changes of the Subglacial Drainage System of a Debris Covered Glacier Over the Melt Season

Remy Veness, University of Sheffield

Higher-order modelling of glacial sediment transports and feedbacks on debris covered glaciers

Philipp Hochreuther

Are inter-annual variations of supra-glacial lakes on the 79°N glacier, Greenland, reflecting climatic variability?

Susanne Schmidt, South Asia Institute, Heidelberg University

Glacier-Induced Hazards in Ladakh, India

GLIMS / RGI - Meeting, Wednesday 27 February

On Wednesday evening, there will be an informal meeting from the GLIMS/RGI working group, to discuss the future development of these datasets. We will meet for food and drinks at 7 pm in Stiegl-Bräu Innsbruck (Wilhelm-Greil-Straße 25, Innsbruck – table booked under the name “Fabian”). Anybody interested in the discussion is welcome to join! For reservation purposes please indicate your participation as early as possible by email.

Conference Dinner, Thursday 28 February

The AGM Conference Dinner on Thursday evening (7:30 p.m.) takes place at Restaurant Hotel Sailer (Adamgasse 8, Innsbruck) which is within walking distance from Innsbruck University (about 15 to 20 minutes). The restaurant offers us three different meal options (see below). Since it is a challenge for the restaurant staff to deal with such a large amount of people paying individually, please pay before you leave and *at the same table where orders were placed*. We kindly ask for your understanding in case of possible small delays.

Meal options

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- Schlutzkrופן mit Parmesan und brauner Butter (€13.90)
(pasta with vegetarian stuffing, parmesan cheese and melted butter)

 - Schweinebraten mit Sauerkraut und Semmelknödel (€17.50)
(pork roast with “Sauerkraut” and dumplings)

 - Wolfsbarschfilet mit Safranrisotto und Fenchelgemüse (€21.90)
(sea bass with saffron risotto and fennel)
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Where to get lunch

The scheduled breaks should allow to have lunch at one of the nearby restaurants or to organize some snacks in the nearby shops. The Mensa in the basement of the conference building offers a fast opportunity to have a warm meal at a moderate rate. There are also bakeries, snack shops and a small supermarket around the “Uni-Kreuzung”, about 150 m east of the conference building (Fig. 2). In case of nice weather it can be nice to sit next to the Inn river while having lunch.

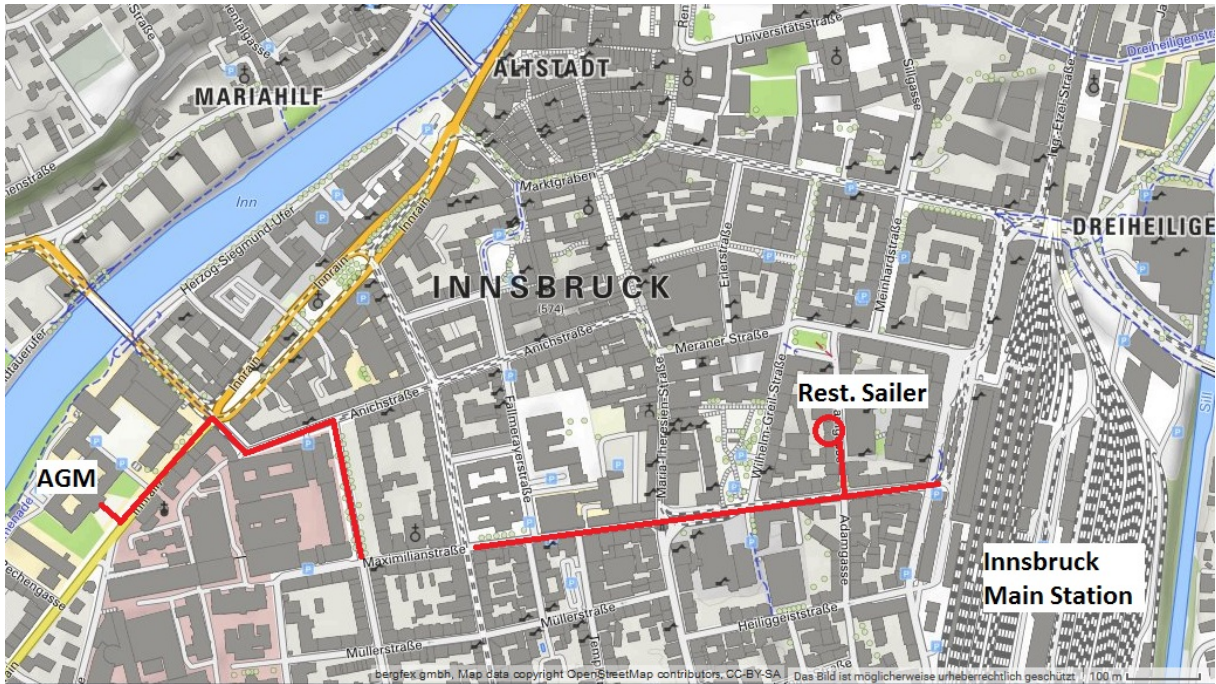


Figure 1: Map showing the location of the Alpine Glaciology Meeting (AGM) 2019 and the conference dinner at Restaurant Sailer. Red line indicates the easiest way from main railway station to the AGM.

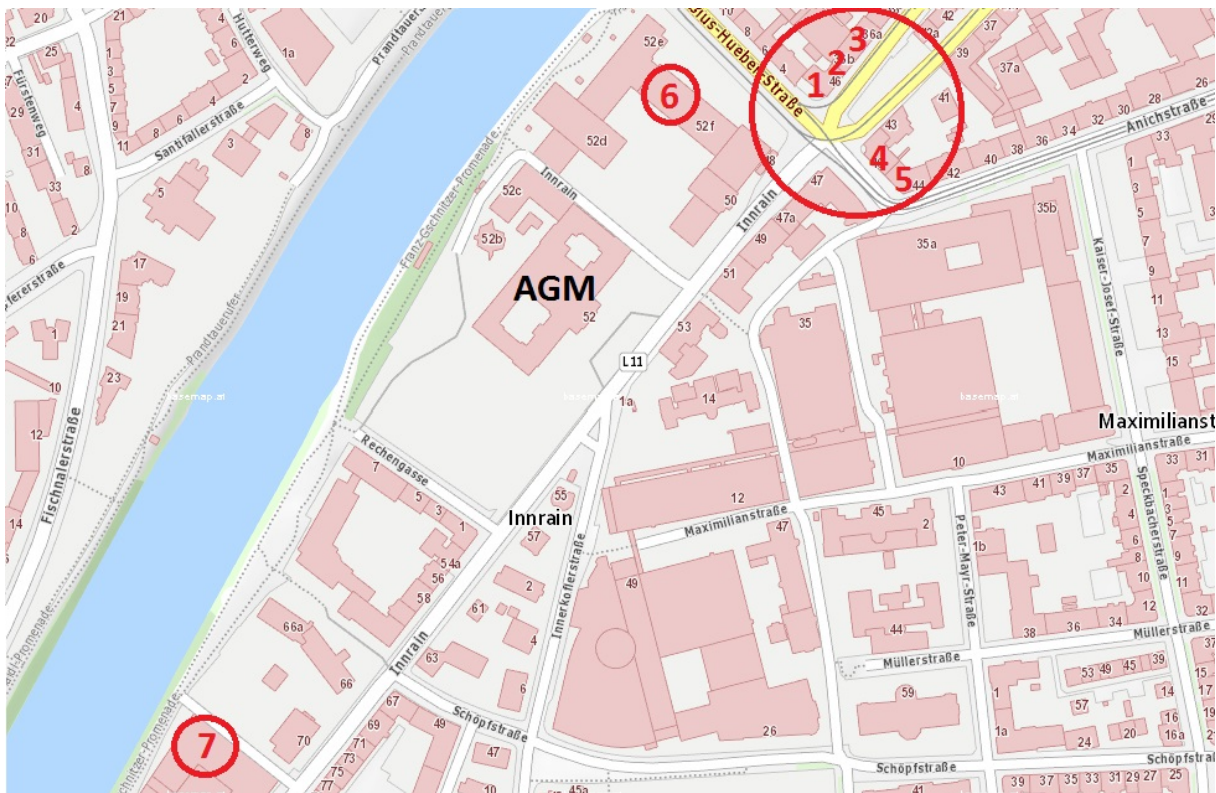


Figure 2: Snack shops. Basement below the AGM room: small cafeteria. 1: Baguette/Thai to go (sandwiches, pastries and thai meals to go or to eat there), 2: wok2go (wok and asian fusion), 3: Spar (small supermarket), 4: Bäckerei Ruetz (sandwiches, pastries, coffee), 5: Cafe Caramelle Muraier (good coffee, cakes, lunch menu of the day), 6: Mensa cafeteria (sandwiches, choice of warm dishes, coffee), 7: "Chemie Mensa" (warm meals: woks, noodles, etc.).