# **Alpine Glaciology Meeting**

## 1./2. March 2007

## VAW, ETH Zürich, Switzerland

#### Thursday, 1 March

- 9:30 9:50 Ludwig N. Braun, Commission for Glaciology, Bavarian Academy of Sciences, Munich Water balance of the highly glaciated Vernagt basin, Ötztal Alps, based on 32 years of measurements
- 9:50 10:10 Matthias Huss, VAW, ETH Zürich, Switzerland Determination of seasonal mass balance of four Alpine glaciers since 1865
- 10:10 10:40 **Coffee Break**
- 10:40 11:00 Fabian Walter, VAW, ETH Zürich, Switzerland Seismic activity during Gornersee jökulhlaups of summers 2004 and 2006
- 11:00 11:20 **Pierre-François Roux**, Laboratoire de Géophysique Interne et Tectonophysique Le Bourget-du-lac,France Seismic evidence for stick-slip processes in an Alpine glacier
- 11:20 11:40 **Mauro Werder**, VAW, ETH Zürich, Switzerland Tracer experiments during the superficial drainage of Gornersee
- 11:40 12:00 **Olaf Eisen**, Alfred-Wegener-Institut, Bremerhaven Can we detect fast fabric changes in glaciers and ice sheets remotely?
- 12:00 14:00 Lunch Break
- 14:00 14:20 **Jean-Pierre Dedieu**, Laboratoire EDYTEM, Université de Savoie, le Bourget du Lac, France

Snow cover modelling under Climate Change conditions in North Calcareous Alps (Austria)

- 14:20 14:40 Alexandra Mittermeier, Meteorologisches Institut, Universität München, Germany Parameterization of snow albedo - an empirical analysis based on records from different environments
- 14:40 15:10 **Poster Presentation**
- 15:10 16:00 Poster session with Coffee
- 16:00 16:20 Gernot Koboltschnig, Institut fuer Wasserwirtschaft, Hydrologie und Konstruktiven Wasserbau, Universitaet fuer Bodenkultur, Wien, Austria Missing snow: calibration and validation of a water balance model in a glacierized high alpine basin
- 16:20 16:40 Frank Paul, Department of Geography University of Zürich, Switzerland A new glacier inventory for the Svartisen area (Norway) from Landsat ETM+: Methodological challenges and first results
- 16:40 17:00 Michael Zemp, Department of Geography Universität Zürich, Switzerland World Glacier Monitoring Service - operations, current call-for-data and International Polar Year activities
- 17:00 Poster session
- 18:30 21:00 Apero and Banquet with the nicest view of town

#### Friday, 2 March

9:00 - 9:20 **Carlo D'Agata**, University of Milan, Italy Recent evolution of the largest debris covered glacier of the Italian Alps: Miage Glacier (Mont Blanc Massif, Italy)

9:20 - 9:40 Claudia Mihalcea, University of Milan, Italy Spatial distribution of surface temperatures, from ground-based and ASTER derived measurements on debris covered glaciers. Study case of Miage Glacier, Mont Blanc Massif, Italy

- 9:40 10:00 **Ben Brock**, Geography, School of Social Sciences University of DundeeScotland, U.K. The surface energy balance of debris-covered Miage Glacier, Mont Blanc Massif, Italy
- 10:00 10:15 **Announcements**
- 10:15 10:40 **Coffee Break**
- 10:40 11:00 **Jeannette Nötzli**, Department of Geography University of Zürich, Switzerland 3D modelling of transient permafrost temperatures below steep alpine topography
- 11:00 11:20 Ludovic Ravanel, Savoie University (EDYTEM), Chambéry, France Recent slope instabilities in steep alpine rockwalls affected by permafrost: a case study in the Mont Blanc massif (the Drus)
- 11:20 11:40 Christian Vincent, LGGE Grenoble, France Hazards relative to glacial lake of Rochemelon (French Alps)
- 11:40 12:00 Martin Funk, VAW, ETH Zürich, Switzerland Consequences of the rapid changes on Unterer Grindelwaldgletscher
- 12:00 14:00 Lunch Break
- 14:00 14:20 **Katrin Röhl**, University of Otago, Dunedin, New Zealand (now in Kiel, Germany) Recent terminus development at debris-covered glaciers in the Southern Alps of New Zealand and implications for future behaviour
- 14:20 14:40 **Martina Schäfer**, LGGE Grenoble, France Mountain glacier flow modelling: a comparison of different models from Shallow Ice Approximation to the Full-Stokes solution
- 14:40 15:00 Jerome Faillettaz, VAW, ETH Zürich, Switzerland Breaking off of large ice masses: Logperiodic oscillations, icequakes and model.
- 15:00 15:30 **Coffee Break**
- 15:30 15:50 **Roger Rüegg, Martin Lüthi**, VAW, ETH Zürich, Switzerland Structural glaciology of Gornergletscher
- 15:50 16:10 Rainer Prinz, Institut für Geographie, Universität Innsbruck, Austria A Comparison of Climate Information as derived from Mean Specific Mass Balance and Ablation Stake Records
- 16:10 16:20 Conclusion

### Posters

Manuela Pelfini, "Ardito Desio" Earth Sciences Department, University of Milan, Italy Kinematic waves and supraglacial tree responses on Miage Glacier (Western Italian Alps)

**Christine Kroisleitner**, Central Institute for Meteorology and Geophysics Wien, Austria Snow chemistry studies of a high alpine snowcover on the examples Wurtenkees and Goldbergkees (Hohe Tauern, Austria)

Alexandre Loye, VAW, ETH Zürich, Switzerland

Evolution of the drainage system during a jökulhlaup as revealed by dye tracer experiments on the Gornergletscher.

Ralph Böhlert, Geographisches Institut Universtität Zürich, Zürich, Switzerland Exploring landscape dynamics in the Eastern Swiss Alps (Albula region, Grisons) during the Lateglacial and early Holocene

Andreas Hasler, Glaciology and Geomorphodynamics Group Department of Geography University of Zürich, Switzerland Investigating steep Bedrock Permafrost with Wireless Sensor Networks

Johanna Nemec, Institut für Meteorologie, Universität Wien, Austria Reconstruction of the surface mass balance of Morteratschgletscher since the Little Ice Age

**Anna Riccardi**, University of Milan, Italy The recent evolution of Mount S. Matteo avalanching glacier (Ortles-Cevedale Group, Italy)

**Reinhard Böhm**, Central Institute for Meteorology and Geodynamics (ZAMG), Vienna, Austria HISTALP - 250 years of instrumental climate in the alpine realm - status and first results

Astrid Lambrecht, Institut für Meteorology und Geophysik Universität Innsbruck, Austria Ablation conditions across the Karakoram Range, a comparison

Michele Citterio, Guglielmina Diolaiuti, Claudio Smiraglia Gianpietro Verza and Eraldo Meraldi,

First results from the automatic weather station (AWS) on the ablation tongue of Forni glacier (Upper Valtellina, Italy)

Christoph Mayer, Wilfried Hagg, Astrid Lambrecht, Achim Helm, Bavarian Academy of Sciences and Humanities, Munich, Germany Post-drainage ice dam response at Merzbacher Lake, Inylchek glacier, Kyrgyzstan

Andy Aschwanden, Heinz Blatter, Institute for Atmospheric and Climate Science, ETH Zürich Modeling polythermal glaciers: regularization with a brine pocket scheme

Marco Carenzo, Institute of Environmental Engineering, ETH Zurich A study of the transferability and robustness of an enhanced temperature-index glacier melt model

M. Vagliasindi, "Ardito Desio" Earth Sciences Department, University of Milan, Italy The new Glacier Inventory of Aosta Valley Region (Italy)

Mauro Werder, VAW, ETH Zürich, Switzerland

Gorner jökulhlaups: Hydraulic model explaining temporary englacial storage of water and flood delay