



International Symposium on Mitigation Measures against Snow Avalanches and other Rapid Gravity Mass Flows – Siglufjörður 3–5 April 2019



Preliminary Programme

Snow 2019 - Iceland

Tuesday 2 April 2019

17:00 – 19:00	Registration at Hótel Sigló
18:30 – 20:00	Welcome reception sponsored by the municipality of Fjallabyggð/Siglufjörður in the Herring Era Museum

Wednesday 3 April 2019

08:00 – 09:00	Registration at the symposium venue (Rauðka)
09:00 – 09:20	Symposium opening – Guðmundur Ingi Guðbrandsson, the Minister for the Environment and Natural Resources, Gunnar Birgisson, the mayor of Fjallabyggð/Siglufjörður, Árni Jónsson, chairman of the local organizing committee.
Session	Risk management, general Chair: Harpa Grímsdóttir
09:20 – 09:40	Michael Bründl: Risk management of gravitational driven processes in Switzerland (<i>keynote</i>)
09:40 – 09:55	Andreas Drexel: <u>Blons in Vorarlberg, Austria – 60 years sustainable avalanche protection – Experience, setbacks and lessons learned</u>
09:55 – 10:10	Odd-Arne Mikkelsen: <u>Snow2019 NVE.RN The Norwegian way of preventing nature hazard</u>
10:10 – 10:25	Martin Proksch: <u>An integral avalanche safety concept for Goms region, Valais, Switzerland</u>
10:25 – 10:40	Hafsteinn Pálsson: <u>The importance of the Icelandic Avalanche and Landslide Fund for avalanche-prone areas in Iceland</u>
10:40 – 10:55	Coffee
Session	Risk management, general, continued Chair: Fjóla Guðrún Sigtryggsdóttir
10:55 – 11:10	Magni Hreinn Jónsson: <u>Avalanche hazard mapping and mitigation for settlements in Iceland – An overview</u>
11:10 – 11:25	Hiroki Matsushita: <u>A simple evaluation of dry-snow avalanche hazard using meteorological data</u>
11:25 – 11:40	Bruce Jamieson: <u>Adjusting for uncertainty when combining runout estimates for extreme snow avalanches</u>
11:40 – 11:55	Cam Campbell/Brian Gould: <u>Post wildfire analysis of avalanche hazard in Canada</u>
11:55 – 12:05	Discussion
12:05 – 13:00	Lunch
Session	Society and the environment Chair: Tómas Jóhannesson
13:00 – 13:20	Arne Instanes: <u>Society and environment in the context of changing climate in Arctic regions (keynote)</u>
13:20 – 13:35	Arnold Studeregger: <u>Avalanche commissions in Austria at the interface between locals and authorities. Embedding, decision process and quality assurance</u>
13:35 – 13:50	Fjóla Guðrún Sigtryggsdóttir: <u>Avalanche and landslide hazard zoning committees in Iceland</u>
13:50 – 14:05	Halldór Halldórsson: <u>Protection measures and working with the locals, practical challenges</u>
14:05 – 14:20	Páll Björgvin Guðmundsson: <u>Management of the construction of protection measures in Fjarðabyggð, E-Iceland, practical challenges</u>
14:20 – 14:35	Abdurrahim Aydın: <u>Historical development and future outlook of the avalanche hazard potential of residential areas in the Lake Uzungöl (Eastern Black Sea Region of Turkey) between 2004 and 2050</u>
14:35 – 15:00	Discussion
15:00 – 15:20	Coffee
Session	Risk management, general, traffic and ski areas Chair: Magni Hreinn Jónsson
15:20 – 15:40	Peter Gauer: <u>Avalanche observations related to probabilities (keynote)</u>
15:40 – 15:55	Martin Proksch/Pascal Venetz: <u>From the pilot study to the practical implementation – A case study from the Oberalppass in Switzerland</u>
15:55 – 16:10	Remzi Eker: <u>Evaluation of snow avalanche hazard on the highway using high resolution UAV data: Case of Erzurum-Çat-Karlıova highway, Turkey</u>
16:10 – 16:25	Patrick Siegele: <u>Hazard managing in Austrian ski areas</u>
16:25 – 16:40	Harpa Grímsdóttir: <u>Management of avalanche risk in Icelandic ski areas</u>
16:40 – 16:55	Tore Humstad: <u>Avalanche warning services as an integrated part of winter road operations in Norway</u>
16:55 – 17:10	Geir Sigurðsson: <u>Avalanche management for roads in Iceland</u>
17:10 – 17:25	Trond Jøran Nilsen: <u>Methods for avalanche protection on roads in Finnmark in Northern Norway</u>
17:25 – 17:40	Daniel Germain: <u>Avalanche hazard in urban snow storage sites in Province of Quebec, Canada</u>
17:40 – 18:00	Discussion
20:30 – 21:30	Optional evening session with photos and videos of avalanches and protection measures



Preliminary Programme

Thursday 4 April 2019

Session	Planning, design, construction and management of protection measures
	Chair: Bruce Jamieson
09:00 – 09:20	Stefan Margreth: <u>Effectiveness and maintenance of technical avalanche protection measures in Switzerland (keynote)</u>
09:20 – 09:35	Cameron Ross: <u>Avalanche deflection berm and stopping wall at a hydro-electric facility in north-western British Columbia, Canada</u>
09:35 – 09:50	Árni Jónsson: <u>Longyearbyen Svalbard – Mitigation measures for Sukkertoppen and Vannledningsdalen</u>
09:50 – 10:05	Daniel Illmer: <u>Everyday work of an avalanche engineer – Calculation of avalanche loads and protection of small objects in avalanche paths like ropeway towers</u>
10:05 – 10:20	Jón Skúli Indriðason: <u>Experience and evaluation of reinforced soil systems in catching dams in Iceland 1998–2017</u>
10:20 – 10:35	Eiður P. Birgisson: <u>Landscape design of snow avalanche protection structures in Siglufjörður and Seyðisfjörður</u>
10:35 – 10:50	<i>Coffee</i>
Session	Planning, design, construction and management of protection measures, continued
	Chair: Andreas Drexel
10:50 – 11:05	Rico Brändle: <u>Floating foundations for flexible snow nets on permafrost and creeping slopes – 10 years experience</u>
11:05 – 11:20	Nicolas Villard: <u>Hybrid innovative protection structures with optimized foundations and field adaptation</u>
11:20 – 11:35	Áslaug Traustadóttir: <u>Landscaping of avalanche dams in Fjarðabyggð and Vesturbyggð</u>
11:35 – 11:50	Anders Bjørndal: <u>Tree Tribes Meeting – how to build a protection dam</u>
11:50 – 12:05	<i>Discussion</i>
12:05 – 13:00	<i>Lunch</i>
Session	Observations of avalanches, instrumentation
	Chair: Árni Jónsson
13:00 – 13:20	Betty Sovilla: <u>The avalanche flow regimes and their pressure on infrastructures (keynote)</u>
13:20 – 13:35	Philippe Berthet-Rambaud: <u>Attempt to combine few historical data from a 19th century avalanche and recent modelling capabilities for hazard zoning at Tignes Brévières</u>
13:35 – 13:50	Jón Skúli Indriðason: <u>Observed changes in hydrology downstream of large earth fill dams in Iceland. Lessons learned</u>
13:50 – 14:05	Engelbert Gleirscher: <u>SNOWCATCHER – full-scale test site in the Stubai Valley – site selection, installation of structure and monitoring system, first results of the avalanche–structure interaction</u>
14:05 – 14:20	Rune Solberg: <u>Landslide detection and mapping by remote sensing</u>
14:20 – 14:35	Tómas Jóhannesson: <u>Snow avalanches hitting deflecting and catching dams in Iceland 1997–2018</u>
14:35 – 14:50	Sveinn Brynjólfsson: <u>Snow avalanches hitting natural obstacles in Iceland: The avalanches at Kisárdalur, Steinsstaðaskál and Upsi in N-Iceland</u>
14:50 – 15:00	<i>Discussion</i>
15:00 – 15:20	<i>Coffee</i>
15:20 – 16:20	Poster session
Session	Simulations of avalanches, laboratory experiments
	Chair: Betty Sovilla
16:20 – 16:40	Chris Johnson: <u>Interaction of granular avalanches with obstacles and topography (keynote)</u>
16:40 – 16:55	Gísli Steinn Pétursson: <u>Analyzing and mitigating the impact of avalanche protection structures on their local wind climate</u>
16:55 – 17:10	Kristín Martha Hákonardóttir: <u>The design of slushflow barriers: Laboratory experiments</u>
17:10 – 17:25	Halldór Pálsson: <u>The design of slushflow barriers: OpenFOAM simulations</u>
17:25 – 17:40	Hafþór Örn Pétursson: <u>Use of RAMMS Avalanche and OpenFOAM to simulate the interaction of avalanches and slush flows with dams</u>
17:40 – 18:00	<i>Discussion</i>
18:00	<i>Closing remarks</i>
18:30 – 20:00	<i>Hotel lounge area open for meeting other guests before the banquet</i>
20:00	<i>Symposium Banquet</i>

Friday 5 April 2019

09:00 – 17:30	<i>Symposium Excursion</i>
18:00 – 19:00	<i>Bus to Akureyri airport from Siglufjörður or Dalvík with excursion participants (flight to Reykjavík departs at 20:10)</i>

Saturday 6 April 2019

09:00 – 16:00	<i>Ski mountaineering tour</i>
17:00 – 18:00	<i>Bus to Akureyri airport with ski mountaineering tour participants (flight to Reykjavík departs at 19:05)</i>



Preliminary Programme

Posters, booths, company introductions

Armelle Decaulne: Mass movements in Nunavik: hazard and risk
Andreas Drexel: Adaption of snow bridges in the Großtal avalanche in Galtür, Tyrol, Austria – Constructive and static problems
Susan J. Conway: Using RAMMS (RAPid Mass Movement Simulation) to simulate rapid gravity mass flows in martian gullies
Örn Ingólfsson: Using data from automatic snow sensors for avalanche forecasting in Iceland
Árni Jónsson: Planning for highways in avalanche-prone areas in Troms County, Northern Norway
Árni Jónsson: Wind simulation for Longyearbyen mitigation measures
Costanza Morino: Geomorphic signatures of different debris-flow release processes in Ísafjörður, north-western Iceland
Elena Pummer: Hybrid modeling of debris flows – Focusing on initial and boundary conditions
Rune Solberg: Mapping snow surface hoar by optical remote sensing
Brynjólfur Sveinsson: Snow avalanche history of rural areas in Iceland
Þorsteinn Sæmundsson: Monitoring rock avalanche hazard from the Svínafellsheiði mountainside in SE Iceland
Þorsteinn Sæmundsson: TDR used for the first time to monitor slope movements in Iceland. A case study from the Almenningar landslide in central North Iceland
FSR – Government Construction Contracting Agency: Protection measures in Iceland – 1997–2018 – Protection dams, supporting structures (three posters)
Exhibitors with booths
CautusGeo, Norway
Trumer Schutzbauten, Austria
Geobruigg, Switzerland
Company introductions
Svarmi ehf.: Use of drones for mapping snow avalanches, landslides and construction areas
Verkís hf.: Design of avalanche protection measures in Iceland. Verkís Consulting Engineers
Hnit hf.: Design of avalanche protection measures in Iceland. Hnit Consulting Engineers