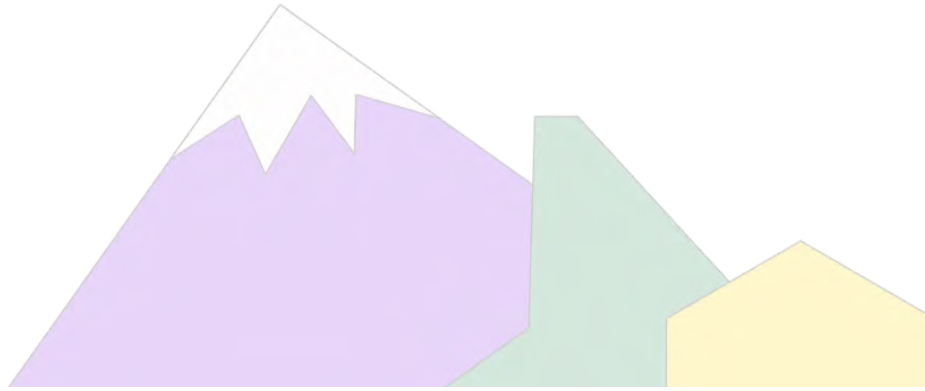




# Programme

## Monday 29. September

### 18:30 – 20:00 The welcome reception will be held at The Westfjords Heritage Museum. Invitation by Ísafjarðarbær

The Westfjords Heritage Museum is located in Neðstakaupstaður in Ísafjörður, and its exhibitions are in the Turnhúsið, which was built in 1784-1785. The museum's main is about fishing and its development in the Westfjords, as well as what the growing fishing industry meant for the people living there. In Neðstakaupstaður stands the oldest cluster of houses in the country, consisting of four houses that all belonged to Danish merchants in the area.

Light refreshments will be served at the museum.

## Tuesday 30. September

### Time

08:00 Registration

08:30 Opening

### 09:00 Keynote 1 – Environment and Society

Designing for Safety and Liveability: Collaborative Approaches to Avalanche Defences in Iceland.

**ÞÓRHILDUR ÞÓRHALLSDÓTTIR, LANDMÓTUN**

### 09:30 - 10:00 Oral Sessions 1

09:30 **O1.1** History of snow avalanches and settlements in hazard areas in Iceland.

**HARPA GRÍMSDÓTTIR, ICELANDIC METEOROLOGICAL OFFICE**

09:45 **O1.2** Seven years of research on snow-avalanche in Nunavik, northern Quebec, Canada: hazards and vulnerabilities.

**ARMELLE DECAULNE, CNRS LETG**

10:00 **QA**

10:15 Break

### 10:30 Keynote 2 – Risk management

Managing natural hazards risk: Perspectives from far-flung.

**ANDREA TAURISANO, NVE**

### 11:00 - 12:00 Oral Sessions 2

11:00 **O2.1** Development of a guidance for site-specific avalanche warning – needs, method, and content.

**ANNA KARIN BERGBJÖRN / PRISKA HELENE HILLER, NVE**

|                      |                                                   |                                                                                                                                                                                                                          |
|----------------------|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11:15                | <b>O2.2</b>                                       | Towards an operational avalanche forecasting tool using RAMMS::Extended.<br><b>CAM P. CAMPBELL, ALPINE SOLUTIONS</b>                                                                                                     |
| 11:30                | <b>O2.3</b>                                       | Systems-Thinking Analysis of the Seyðisfjörður Landslide Programme: Understanding Feedback Control Mechanisms.<br><b>SÓLVEIG THORVALDSDÓTTIR, UNIVERSITY OF ICELAND</b>                                                  |
| 11:45                | <b>O2.4</b>                                       | Temporary risk reduction methods in protected areas.<br><b>ÓLIVER HILMARSSON, ICELANDIC METEOROLOGICAL OFFICE</b>                                                                                                        |
| 12:00                | <b>QA</b>                                         |                                                                                                                                                                                                                          |
| 12:15                | <b>Lunch</b>                                      |                                                                                                                                                                                                                          |
| <b>13:15</b>         | <b>Keynote 3 – Planning, design, construction</b> |                                                                                                                                                                                                                          |
|                      |                                                   | Avalanche and landslide protection measures in Iceland: 30 years of design innovations protecting ten Icelandic communities.<br><b>KRISTÍN MARTHA HÁKONARDÓTTIR, THE MINISTRY OF THE ENVIRONMENT, ENERGY AND CLIMATE</b> |
| <b>13:45 - 15:00</b> | <b>Oral Sessions 3</b>                            |                                                                                                                                                                                                                          |
| 13:45                | <b>O3.1</b>                                       | Guidelines and digital toolboxes for mitigation measure planning and assessment from an Austrian Perspective.<br><b>FELIX OESTERLE, AUSTRIAN RESEARCH CENTRE FOR FORESTS</b>                                             |
| 14:00                | <b>O3.2</b>                                       | Numerical analysis of reinforced soil barriers subjected to avalanche dynamic loads.<br><b>OLTION KORINI, GEOQUEST</b>                                                                                                   |
| 14:15                | <b>O3.3</b>                                       | Monitoring Umbrella Nets – A Full-Scale Test Site in Tirol.<br><b>ENGELBERT GLEIRSCHER, BFW</b>                                                                                                                          |
| 14:30                | <b>O3.4</b>                                       | HELIOPLANT® – PV structure in avalanche protection.<br><b>THOMAS SÖNSER / ALEXANDER PLONER, I.N.N.</b>                                                                                                                   |
| 14:45                | <b>O3.5</b>                                       | Preventive Avalanche Control on Arnøya – Securing Critical Infrastructure.<br><b>THOMAS BERGER / SHIRI WICKSTRÖM/ SINDRE LINSTAD, MND FRANCE</b>                                                                         |
| 15:00                | <b>QA</b>                                         |                                                                                                                                                                                                                          |
| <b>15:15 - 15:45</b> | <b>Break + Postersession 1</b>                    |                                                                                                                                                                                                                          |
|                      | <b>P1.1</b>                                       | Avalanche control systems and traditional mitigation structures.<br><b>INES WALTL, INAUEN SCHÄTTI AG</b>                                                                                                                 |
|                      | <b>P1.2</b>                                       | Avalanche Monitoring in Flateyri using Doppler Radar<br><b>LARS KRANGNES, CAUTUS GEO AS</b>                                                                                                                              |
|                      | <b>P1.3</b>                                       | Samuelsberg catching dam partial failure and rebuild – A case study<br><b>ÁRNI JÓNSSON, ORION CONSULTING SLF</b>                                                                                                         |
|                      | <b>P1.4</b>                                       | Adapting and using active rigid modules in a passive way against avalanches<br><b>PHILIPPE BERTHET-RAMBAUD, ENGINEERISK</b>                                                                                              |
|                      | <b>P1.5</b>                                       | Detection of liquid water accumulations during snow block sliding experiments<br><b>JAMES GLOVER, UNIVERSITY OF APPLIED SCIENCES GRISONS</b>                                                                             |
|                      | <b>P1.6</b>                                       | Roof avalanche mitigation through photovoltaic panel heating to induce controlled snow removal<br><b>JAMES GLOVER, UNIVERSITY OF APPLIED SCIENCES GRISONS</b>                                                            |
| 15:45                | <b>WS1</b>                                        | The avalanche incidents 1995 documented through the camera<br><b>RAGNAR AXELSSON, RAX</b>                                                                                                                                |
| 16:15                | <b>WS2</b>                                        | Officers on duty during the avalanche incidents 1995.<br><b>RÖGNVALDUR ÓLAFSSON/HLYNUR SNORRASON, THE NATIONAL POLICE COMMISSIONERS OFFICE</b>                                                                           |
| 16:45                | <b>WS3</b>                                        | A Historical Perspective: Events Leading Up to, During, and Following the 1995 Avalanches.<br><b>ÁRNI JÓNSSON, ORION CONSULTING SLF</b>                                                                                  |
| 17:15                |                                                   | End of Tuesday program                                                                                                                                                                                                   |

# Programme (Continue)

## Wednesday 1. October

### 09:00 – 17:30 – Field excursion / symposium tour

At 09:00 the buses will depart from the conference hall, heading first to Súðavík for a brief stop at the memorial site. From there, the tour continues to Flateyri, where we will observe the existing mitigation measures and ongoing construction projects.

A lunch break is planned at Café Gunna.

Afterward, we will travel to Bolungarvík to visit Iceland's highest catching dam. The final three stops of the day will be in Ísafjörður, where we will examine catching and deflecting dams. The tour is scheduled to conclude no later than 18:00.

## Thursday 2. October

### Time

08:00 Venue opens

### 8:30 - 9:30 Oral Sessions 4

08:30 **O4.1** Are avalanche pressure requirements still necessary for the design of modern ropeways ?

**PHILIPPE BERTHET-RAMBAUD, ENGINEERISK**

08:45 **O4.2** Mitigating the natural hazard risk in Longyearbyen, Svalbard

**ÁRNI JÓNSSON, ORION CONSULTING SLF**

09:00 **O4.3** Swiss experience with direct avalanche protection measures on buildings

**STEFAN MARGRETH, WSL INSTITUTE FOR SNOW AND AVALANCHE RESEARCH SLF**

09:15 **O4.4** Planning & structural limitations of RACS – making structures survive in avalanche release areas

**MARTIN VENÅS, WYSSEN NORWAY**

09:30 **QA**

09:45 Break

### 10:00 - 11:30 Oral Sessions 5

10:00 **O5.1** Keeping the power on: Quantitative avalanche risk assessment and operational decision making for a transmission in British Columbia, Canada

**ALAN JONES, DYNAMIC AVALANCHE CONSULTING LTD**

10:15 **O5.2** Comparing benefit-cost-analyses of snow avalanche mitigation measures obtained by two hazard and risk analysis approaches

**MICHAEL BRÜNDL, WSL INSTITUTE FOR SNOW AND AVALANCHE RESEARCH SLF**

10:30 **O5.3** Integral snow avalanche risk management for national roads in Norway

**MARKUS ECKERSTORFER, NORWEGIAN PUBLIC ROADS ADMINISTRATION**

10:45 **O5.4** The Pollfjellet powder snow avalanche: Building model scenarios for a mass dependent model and mitigation Case study

**HALLVARD SKAARE NORDBRØDEN, SKRED AS**

11:00 **O5.5** Risk management from natural hazards for the new European Road E10, Halogalandsveien

**CHRISTIAN JAEDICKE, NORWEGIAN GEOTECHNICAL INSTITUTE**

11:15 **O5.6** Land use and planning of settlements in hazard zones and under defense structures

**MAGNI HREINN JÓNSSON, ICELANDIC MET OFFICE**

|                      |                                                                                                                                                                                                                                                          |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11:30                | QA                                                                                                                                                                                                                                                       |
| 11:45                | Lunch                                                                                                                                                                                                                                                    |
| <b>12:45</b>         | <b>Keynote 4 – Mitigation measures; simulations, experiments, experiences</b><br>From granular mechanics to 3D modeling: Advancing avalanche hazard assessment and mitigation<br><b>MICHAEL LUKAS KYBURZ, CHAIR OF ALPINE MASS MOVEMENTS, ETH ZÜRICH</b> |
| <b>13:15 - 14:15</b> | <b>Oral Sessions 6</b>                                                                                                                                                                                                                                   |
| 13:15                | <b>O6.1</b> Three-dimensional simulations of snow-avalanche flow for assessing the effectiveness of protections measures in the run-out zone<br><b>TÓMAS JÓHANNESSON, ICELANDIC METEOROLOGICAL OFFICE</b>                                                |
| 13:30                | <b>O6.2</b> Turbulence-Based Modeling of Powder-Snow Avalanches and Air-Blast Pressures Using RAMMS::Extended<br><b>PERRY ANDERS BARTELT, RAMMS AG</b>                                                                                                   |
| 13:45                | <b>O6.3</b> Large scale avalanche hazard indication modelling adapted for Iceland<br><b>YVES BÜHLER, WSL INSTITUTE FOR SNOW AND AVALANCHE RESEARCH SLF</b>                                                                                               |
| 14:00                | <b>O6.4</b> Bridging the Gap: Scenario-Based Avalanche Modeling vs. Back-Calculation of Events<br><b>LUKAS STOFFEL, WSL INSTITUTE FOR SNOW AND AVALANCHE RESEARCH SLF</b>                                                                                |
| 14:15                | QA                                                                                                                                                                                                                                                       |
| 14:30                | Break                                                                                                                                                                                                                                                    |
| 14:45                | Sponsor session                                                                                                                                                                                                                                          |
| <b>15:00 - 15:45</b> | <b>Oral Sessions 7</b>                                                                                                                                                                                                                                   |
| 15:00                | <b>O7.1</b> Towards a Physics-Based Quantification of Run-Up and Impact Pressure Using Numerical and Physical Experiments<br><b>MICHAEL JOSEF KOHLER, WSL INSTITUTE FOR SNOW AND AVALANCHE RESEARCH SLF</b>                                              |
| 15:15                | <b>O7.2</b> Use of OpenFOAM and $\mu(I)$ rheology in design of protective structures for avalanches for Flateyri.<br><b>REYNIR LEVÍ GUÐMUNDSSON, VERKÍS</b>                                                                                              |
| 15:30                | <b>O7.3</b> Numerical simulation of slushflow and assessment of proposed protective measures in Patreksfjörður, Iceland.<br><b>RAGNAR LÁRUSSON, VERKÍS</b>                                                                                               |
| 15:45                | QA                                                                                                                                                                                                                                                       |
| <b>16:00</b>         | <b>Break + Postersession 2</b>                                                                                                                                                                                                                           |
|                      | <b>P2.1</b> Engineering Approaches to Avalanche Mitigation in Japan: Current Status, Challenges, and Future Perspectives.<br><b>YUSUKE HARADA, CIVIL ENGINEERING RESEARCH INSTITUTE FOR COLD REGION</b>                                                  |
|                      | <b>P2.2</b> Snow net instrumentation at Snoqualmie Pass, Washington, USA.<br><b>CHRIS WILBUR, WILBUR ENGINEERING, INC.</b>                                                                                                                               |
|                      | <b>P2.3</b> New experiments and measurements to improve operational practices for preventive avalanche triggering.<br><b>PHILIPPE BERTHET-RAMBAUD, ENGINEERISK</b>                                                                                       |
|                      | <b>P2.4</b> Monitoring site Ranalt – Flexible barrier designed for catching avalanches exposed to an unexpected debris flow event.<br><b>GERNOT STELZER, TRUMER SCHUTZBAUTEN GMBH</b>                                                                    |
|                      | <b>P2.5</b> Snow fences on Eyrarfjall above Flateyri: A pilot study on avalanche risk reduction.<br><b>GÍSLI STEINN PÉTURSSON, VERKÍS</b>                                                                                                                |
|                      | <b>P2.6</b> Development of a calculation method for flexible rockfall barriers under static and dynamic snow loads.<br><b>DENNIS GASTEIGER, GEOBRUGG AG</b>                                                                                              |
| 16:30                | End of Thursday program                                                                                                                                                                                                                                  |
| 19:00                | Dinner at Hótel Ísafjörður                                                                                                                                                                                                                               |

## Friday 3. October

### Time

08:00 Venue opens

### 08:30 - 09:30 Oral Sessions 8

08:30 **O8.1** Artificial intelligence supported extra long-range Doppler radar: avalanche activity measurement and RACS blasting verification in Evolène  
**MAXENCE CARREL, GEOPREVENT**

08:45 **O8.2** Detailed, high temporal resolution snow surface monitoring for avalanche hazard management: A case study from a controlled avalanche release  
**PIA RUTTNER, WSL INSTITUTE FOR SNOW AND AVALANCHE RESEARCH SLF**

09:00 **O8.3** Low-Cost Lidar Monitoring to Inform Planning and Implementation of Avalanche Mitigation  
**THOMAS GOELLES, UNIVERSITY OF GRAZ**

09:15 **QA**

09:30 Break

### 09:45 - 11:00 Oral Sessions 9

09:45 **O9.1** Impact of Snow Depth Initialization on Avalanche Modeling: Comparing Station Data with High-Resolution Measurements  
**JULIA GLAUS, WSL INSTITUTE FOR SNOW AND AVALANCHE RESEARCH SLF**

10:00 **O9.2** Comparing simulated pressure profiles with measurements from a power line assembly at the Ryggfonn test site.  
**PETER GAUER, NORWEGIAN GEOTECHNICAL INSTITUTE**

10:15 **O9.3** Next-Generation Modular Avalanche Radar with Multi-Hazard Capabilities  
**SUSANNE WAHLEN, GRAVIMON LTD.**

10:30 **O9.4** Development of snowsensors in Ísafjörður  
**ÖRN INGÓLFSSON / HARPA GRÍMSDÓTTIR, ICELANDIC METEOROLOGICAL OFFICE**

10:45 **QA**

11:00 Break

### 11:15 - 12:30 Oral Sessions 10

11:15 **O10.1** Experiences in designing mitigation measures against slush flows  
**ELISE MORKEN, NORWEGIAN GEOTECHNICAL INSTITUTE**

11:30 **O10.2** Slush Flows – A review of a poorly explored phenomenon and its protection measures  
**NADINE FEIGER, MOUNTAIN HAZARD ENGINEERING GMBH**

11:45 **O10.3** Advancing Snowdrift Forecasting with Physically-Based Snow Models and High-Resolution Weather Data  
**SVEINN GAUTI EINARSSON, VEÐURVAKTIN**

12:00 **O10.4** Can wind simulation help optimize function of snow avalanche mitigation measures?  
**ÁRNI JÓNSSON, ORION CONSULTING SLF**

12:15 **QA**

12:30 Conference Closing