

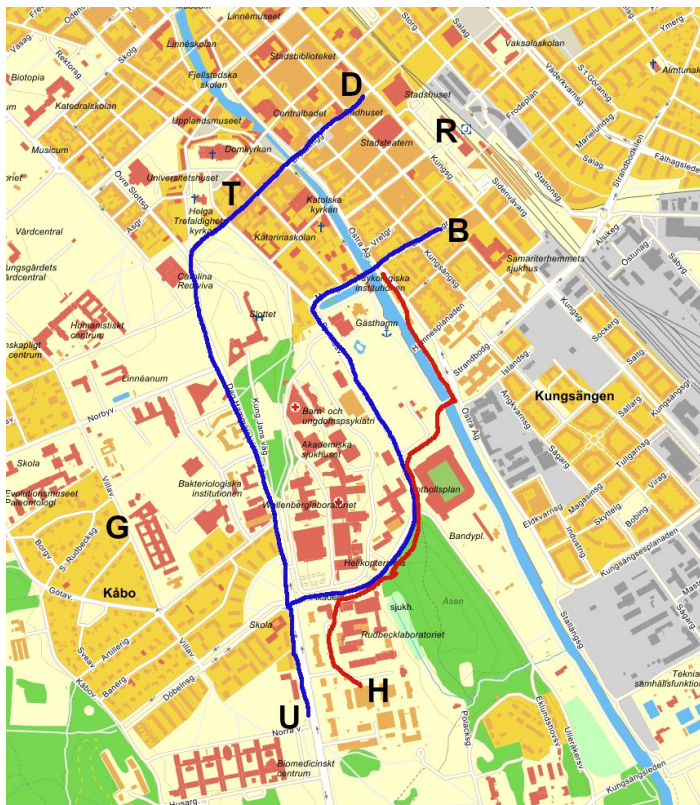
The 55th Nordic Seminar in Seismology

Program

Venue

The seminar will be held at Hubben, at Dag Hammarskjölds väg 38, a conference venue in the so called Uppsala Science Park, up the hill from the center of town at H on the map.

Hubben is just a 20 minute walk from central Uppsala. If you prefer the bus, buses number 3, 4 and 8 take you from Bäverns Gränd (B) to Uppsala Science Park (U), close to Hubben, in 5 - 6 minutes. From Dragarbrunnsgatan (D) or Trädgårdsgatan (T) use bus 11, which takes a similar time.



Monday 9 September

12:00 – 13:25 Lunch

13:25 – 13:30 Björn Lund (Uppsala), Jon Grumer (FOI): Welcome to the 55th NSS

Seismic networks and monitoring Chair: Björn Lund & Stefanie Donner

13:30 – 13:50 Peter Voss, GEUS: Recent development of the seismological network in Denmark and Greenland

13:50 – 14:10 Christian Weidle, University of Kiel: Recent seismic network developments in N Germany and derivation of a local velocity model from explosion monitoring

14:10 - 14:30 Klaus Stammler, BGR: The German seismological networks available at the EIDA Node BGR

14:30 – 14:50 Matt Gardine, University of Helsinki: Balancing legacy, standards, and usability

14:50 – 15:10 Coffee break

15:10 – 15:30 Michael Roth, Uppsala University: Status and developments of the Swedish National Seismic Network

15:30 – 15:50 Henrik Olsson, FOI: Hagfors array update

15:50 – 16:10 Frederic Wagner, SKB: Establishing the Forsmark seismic network: challenges and lessons learned

16:10 – 16:30 Eva Lindblom, Uppsala University: Monitoring and processing of seismic activity in the Forsmark Seismic Network

16:30 – 16:50 Steffen Uhlmann, IGM GmbH (Nanometrics):
(1) Hidden Attraction - Uncovering (Geo-)Magnetic effects on Seismometers
(2) Performance of Borehole Broadband Seismometers (Update)

Posters

17:00 - SEALION project group working meeting

Tuesday 10 September

Progress in methodologies Chair: Jon Grumer & Gregor Hillers

- 9:00 – 9:20 Stefanie Donner, BGR: Challenges of rotational ground motion measurements in the local distance range
- 9:20 – 9:40 Natalia Poiata, International Seismological Centre: Automatic waveform measurements for ISC mb and Ms
- 9:40 – 10:00 Jens Havskov, University of Bergen: Magnitude mb: reducing processing related variability
- 10:00 – 10:20 Viesturs Zandersons, University of Latvia: Advancements in semi-automatic seismic monitoring of Latvia using machine learning
- 10:20 – 10:40 Coffee break
- 10:40 – 11:00 Ruth Beckel, Uppsala University: Can seismological data contribute to the monitoring of impulsive underwater noise?
- 11:00 – 11:20 Annie Jerkins, Norsar: The potential of offshore sensors and array processing for enhancing seismic event detection and location in the North Sea
- 11:20 – 11:40 Mathilde B. Sørensen: Monitoring Arctic seismicity with ocean bottom seismographs and underwater acoustics
- 11:40 – 12:00 Qinghua Lei, Uppsala University: Predicting catastrophic failures: landslides, rockbursts, glacier breakoffs, and volcanic eruptions
- 12:00 – 13:30 Lunch break

Seismic studies Chair: Christian Weidle & Heidi Soosalu

- 13:30 – 13:50 Heidi Soosalu, Geological Survey of Estonia: The historical discrepancy of Estonia as a seismic but aseismic country
- 13:50 – 14:10 Päivi Mäntyniemi, University of Helsinki: Statistical features of earthquake data in Finland and adjacent areas: Insights from model testing
- 14:10 – 14:30 Wenbo Pan, Uppsala University: Physics of the b-value of earthquake aftershocks
- 14:30 – 14:50 Gregor Hillers, University of Helsinki: Local dense array focal spot imaging
- 14:50 – 15:10 Coffee break

15:10 – 15:30 Christian Schiffer, Uppsala University: The crustal structure of the Varanger Peninsula, northern Norway - Preliminary results

15:30 – 15:50 Christina Dahnér, LKAB: **Cancelled**

15:30 – 15:50 Chhotu Kumar Keshri, Luleå University of Technology: Estimation of the in-mine stress field using microseismic source mechanisms in the Kiruna mine

15:50 – 16:10 Iman Vaezi, Uppsala University: The threshold of induced microseismicity is related to plasticity. Case study: hydroshearing in fractured crystalline rock at the Bedretto Underground Laboratory (Switzerland)

Posters

Brief introductions by the authors

18:45 Conference dinner at restaurant “Peppar Peppar”, Suttungs gränd 3

Wednesday 11 September

Chair: Mathilde Sørensen & Peter Voss

9:00 – 9:20 Peter Schmidt, Uppsala University: Contemporary glacial isostatic adjustment in Iceland, preliminary results from the ISVOLC project

Seismic Hazard

9:20 – 9:40 Maren Kjos Karlsen, University of Bergen: A new national seismic hazard assessment for Norway

9:40 – 10:00 Päivi Mäntyniemi, University of Helsinki: Consequences of small to moderate earthquakes: Examples from Fennoscandia in 1882 and 1904

10:00 – 10:20 Coffee break

10:20 – 10:40 Björn Lund, Uppsala University: Comparing European seismic hazard models in Fennoscandia

10:40 – 11:00 Jan Lundwall, Vattenfall: Assessment of impact on seismic hazard at NPPs in Sweden based on European seismic hazard models ESHM13/ESHM20

11:00 – 11:50 Time for discussion: DAS, machine learning, unifying Nordic methodologies, data handling or whatever you like.

11:50 – 11:55 Peter Voss, GEUS: Nordic seminar in seismology 2025

11:55 – 12:00 Björn Lund (Uppsala), Anders Ringbom (FOI): Closing remarks

12:00 – 13:30 Lunch

Afternoon

All interested are welcome to visit the SNSN at the department of Earth Sciences, Villavägen 16.

Project meeting: 14:00 – 16:30: Nordic-SMART, at the Dept. of Earth Sciences,
Villavägen 16.

Posters

Trine Dahl-Jensen, GEUS: Earthquakes offshore Thy in Denmark

Andreas Steinberg, BGR: Advantages and issues of applying machine learning based denoising

Ludovic Fulop, VTT Finland: A preliminary seismic hazard map of Finland

Annakaisa Korja, University of Helsinki: EPOS-Finland