

# Joint Nordic EPOS Meeting and 52<sup>nd</sup> Nordic Seismology Seminar

18-21 October 2021

## PROGRAM

**Monday 18 Oct. 09:00-16:30 CEST (07:00–14:30 UTC)**

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**Session 1 EPOS training activities**

09:00–12:00 EPOS data portal (arranged by EPOS-ERIC/UiB)

13:00–14:30 Earthquake Hazard and risk (arranged by TCS-SEIS/EFEHR group)

15:00–16:30 Anthropogenic hazard in the Nordic region (arranged by TCS-AH/IG-PAS)

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**Tuesday 19 October 08:00–13:30 UTC (10:00-15:30 CEST)**

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**NOTE: time slots given in UTC (CEST)**

**08:00 – 10:45 (CEST 10:00-12:45) Session 2. Efficient RI management and services, including EPOS services**

*Chair: Peter Voss*

08:00–08:05 Welcome Address: Kristín S. Vogfjörð

08:05–08:20 Annakaisa Korja, et al.: Nordic EPOS: Strengthening Nordic collaboration

08:20–08:35 Jan Michalek: Nordic FAIR and Data Management Working Group

08:35–08:50 Peter Voss: RI management and services at the seismological service for the Kingdom of Denmark.

08:50–09:05 Peter Schmidt, Zaher Hossein Shomali, Michael Roth, Björn Lund: Nordic EPOS related activities at SNSN. Automatic and reviewed regional bulletins.

*09:05-09:10 5 min. break/stand up and stretch!*

09:10–09:25 Kati J. Oinonen, M. Uski: Future challenges of the FENCAT catalog.

09:25–09:40 Ilmo Kukkonen et al.: Updates from FIN-EPOS: Seismic Instrument Pool.

09:40–09:55 Kristín S. Vogfjörð and EPOS Iceland team: EPOS Iceland: Construction and management of RI to provide FAIR access to Geoscience data.

09:55–10:10 Ryan Gallacher, Dmitry Storchak and James Harris: An update on the CTBTO Link to the ISC Database.

10:10–10:45 Discussion session

*10:45–11:15 Break (CEST 12:45–13:15)*

**11:15 – 13:55 (CEST 13:15–15:55) Session 3. European earthquake hazard model and its modification for the Nordic region**

*Chair: Björn Lund*

11:15–11:30 Laurentiu Danciu: The 2020 Update of the European Seismic Hazard Model: insights for Iceland and Finno-Scandia Region

11:30–11:45 Helen Crowley: European Seismic Risk Model (ESRM20)

11:45–12:00 Björn Lund: On seismic hazard assessment in Sweden

12:00–12:15 Ludovic Fülöp, Päivi Mäntyniemi, Niina Junno, Kati Oinonen and Annakaisa Korja (WG1 of the Seismic-Risk project): Seismic source zone refinements of the Seismic-Risk project in Finland.

12:15–12:30 Benedikt Halldorsson, Farnaz Bayat, Milad Kowsari, Claudia Abril: New 3D fault system models of the two transform zones of Iceland for physics-based seismic hazard assessment

*12:30–12:45 Short break (CEST 14:30–14:45)*

12:45–13:00 Farnaz Bayat, Benedikt Halldorsson, Milad Kowsari: On the calibration of the first 3D transform fault system model of the South Iceland Seismic Zone and Reykjanes Peninsula Oblique Rift

13:00–13:15 Milad Kowsari and Benedikt Halldorsson: Sensitivity of the Seismic Hazard Maps to the Selected Ground Motion Models: A Case Study of North Iceland

Poster

13:15–13:25 Niranjana Rishi: Probabilistic seismic hazard assessment of Sweden

13:25–13:55 Discussion on the status of the earthquake hazard model in the Nordic region

**Wednesday 20 October 08:00–14:30 UTC (10:00–16:30 CEST)**

**08:00 – 09:10 (CEST 10:00–11:10) Session 4. General seismology session**

*Chair: Sigríður Kristjánsdóttir*

08:00–08:05 Welcome day 2

08:05–08:20 Michael Roth, Björn Lund, SNSN Team, Uppsala University: The Swedish National Seismic Network - Status 2021.

08:20–08:35 Heidi Elisabet Soosalu: Future plans for the Estonian seismic network.

08:35–08:50 Valerijs Nikulins: State and problems of seismological monitoring in Latvia. Prospects and ways of solving problems.

08:50–09:05 Sigríður Kristjánsdóttir: The HIKE project: Towards better earthquake locations.

## Posters:

09:05–09:15 Akash Kharita, Peter Voss, Trine Dahl-Jensen, Michael West: Discrimination of icequakes and tectonic earthquakes using unsupervised Machine Learning.

*09:15–09:30 Short break (CEST 11:15–11:30)*

## **09:30 – 11:15 (CEST 11:30–13:15) Session 5. Seismic and volcanic events and activity in Iceland**

*Chair: Benedikt Halldórsson*

09:30–09:45 Atefe Darzi, Benedikt Halldorsson, Birgir Hrafnkelsson, Hossein Ebrahimian, Fatemeh Jalayer, Kristín S. Vogfjörð: Improving short-term seismicity forecasting following strong earthquakes in the South Iceland Seismic Zone

09:45–10:00 Tom Winder, Robert S. White, Bryndís Brandsdóttir: Investigating shallow seismic swarms between Askja and Herðubreið with QuakeMigrate: a new, open-source Python package for automatic earthquake detection and location

10:00–10:15 Hanna Blanck, Dirk Rössler, Bernd Weber, Benedikt Halldórsson: On the capability of the new Grindavik seismic and strong motion array on inferring volcano-tectonic processes.

10:15–10:30 Egill Árni Guðnason: Iceland Geosurvey's seismic monitoring of exploited geothermal areas.

10:30–10:45 Päivi Mäntyniemi, M.B. Sørensen and R.E. Tatevossian: Investigation of earthquake environmental effects in Fennoscandia.

10:45–11:15 General Discussions

**11:15 Invitation to next Nordic Seismology meeting (53<sup>rd</sup>)**

**11:20 Closing Remarks: Sigurlaug Hjaltadóttir/Kristín S. Vogfjörð**

*11:25 End of meeting (CEST 13:25)*

## **List of participants**

Hanna Blanck	IMO and Univ. of Iceland
Tine B. Larsen	GEUS Dk
Kuvvet Atakan	Universitetet i Bergen (UiB)
Grzegorz Lizurek	IGF Poland
Federica Ghione	NORSAR
Gunnar Eggertsson	SNSN/Uppsala Universitet
Tom Winder	University of Cambridge
Sigríður Kristjánsdóttir	ÍSOR (Iceland Geosurvey)
Dmitry Storchak	International Seismological Centre (ISC)
Ryan Gallacher	International Seismological Centre (ISC)

Kristín S. Vogfjörð	Icelandic Met. Office (IMO)
Sigurlaug Hjaltadóttir	IMO
Akash Kharita	Indian Institute of Technology Roorkee
Nicolai Rinds	GEUS Dk
Ríkey Júlíusdóttir	IMO
Bergrún Arna Óladóttir	IMO
Thomas Funck	GEUS Dk
Hildur María Friðriksd.	IMO
Peter Voss	GEUS Dk
Peter Schmidt	Uppsala Universitet
Zaher Hossein Shomali	Uppsala Universitet
Christian Rønnevik	Universitetet i Bergen (UiB)
Sara Kverme	Universitetet i Bergen (UiB)
Heidi Elisabet Soosalu	Geological Survey of Estonia
Björn Lund	Uppsala Universitet
Päivi Mäntyniemi	Institute of Seismology, Univ. of Helsinki
Kati J. Oinonen	Institute of Seismology, Univ. of Helsinki
Michael Roth	Uppsala Universitet
Niranjan Joshi	Uppsala Universitet
Ludovic Fülöp	VTT Technical Research Centre of Finland
Päivi Haapanala	Institute of Seismology, Univ. of Helsinki
Annakaisa Korja	Institute of Seismology, Univ. of Helsinki
Jan Michalek	Universitetet i Bergen (UiB)
Valerijs Nikulins	Latvian Environm., Geology and Meteorology Center
Toni Veikkolainen	Institute of Seismology, Univ. of Helsinki
Katriina Arhe	Institute of Seismology, Univ. of Helsinki
Benedikt Halldórsson	IMO/Univ. of Iceland
Farnaz Bayat	University of Iceland
Milad Kowsari	University of Iceland
Atefe Darzi	University of Iceland
Laurentiu Danciu	ETH Zurich, CH
Helen Crowley	EUCENTRE, PAVIA, ITALY
Lars Ottemöller	Universitetet i Bergen (UiB)
Egill Árni Guðnason	ÍSOR (Iceland Geosurvey)
Jennifer Hällsten	Institute of Seismology, Univ. of Helsinki
Andrius Pacesa	Lithuanian Geological Survey
Tuija O. Luhta	Institute of Seismology, University of Helsinki
Þorbjörg Ágústsdóttir	ÍSOR (Iceland Geosurvey)
Kristján Ágústsson	ÍSOR (Iceland Geosurvey)

Gunnar B. Guðmundsson	IMO
Hanna Silvennoinen	University of Oulu
Niina M. Junno	Institute of Seismology, University of Helsinki
Joana C. Esteves Martins	Advisory Group for Economic Affairs and Climate, Utrecht
Ilmo Kukkonen	University of Helsinki
Jouni Nevalainen	University of Oulu
Anna Maria Dichiarante	NORSAR
Outi Kaisko	Rock Mechanics Consulting Finland Oy
Marianne Malm	AFRY, Vantaa
Lauri Rinne	AFRY, Vantaa
Marja Uski	Institute of Seismology, University of Helsinki