

## 1 Hydrogeology

Roland Barthel, Charlotte Sparrenbom

	Name	Title
<b>Oral presentation</b>		
1 Keynote	Klaus Hinsby, Hans Peter Broers, Laurence Gourcy and Peter van der Keur	Digital groundwater and geoscience data supports the green transition and UN Sustainable Development Goals
2	Ida Lunde Hygum, Charlotte Sparrenbom, Anna Thomasson, Kenneth M. Persson, Andreas Persson	Managing Complexity: Local Groundwater Management in Sweden
3	Fredrik Mossmark, Eva Hellstrand, Anders Retzner, Jonas Sundell, Roland Barthel, Peter Berg, Åsa Fransson, Siw Hedenstedt, Karin Lundström, Hjördis Löfroth, Isabelle Staub, Christian Öhrling	Predicting the impact of climate change to groundwater and its implications for the built environment
4	Filippa Fredriksson, Veronika R. M. Sørensen, Sofie Aagaard, Marilou Chazarin, Lars Båstrup-Spohr, Hans Henrik Bruun, Marta Baumane, and Søren Jessen	Has the hydro(geo)logy changed after drainage in restored lowlands?
5	Peter van der Keur, Malis Absametov, Daniyar Chensizbaev, Henk Coetzee, Narmina Garayeva, Klaus Hinsby, Lucio Martarelli, Oleksii Netskyi, Dan Palombi, Kevin Parks, Sergii Paiuk, Marco Petitta, Manzoor Qadir, Teodóra Szőcs, Natalia Vinograd, Magdalena Worsa-Kozak	Use of UN Framework for Classification (UNFC) for Groundwater Resources
6 Invited	Alasdair Skelton and Erik Sturkell	Chemical changes in groundwater associated with earthquakes in northern Iceland
7	Nikolas Benavides Höglund, Charlotte Sparrenbom and Rui Hugman	Assimilating hydraulic response data from in-situ bioremediation injection treatment for improved decision-support modelling
8	Bilal Tariq, Helen K. French, Stéphane Polteau, Helgard Anschütz, Kari Røseth	Site Investigation of the Natural Geological Barrier of a Rock Quarry as a Potentially new Landfill site
9	Cecilie S. Andersen, Eline B. Weeth, Katerina Tsitonaki, Bolette B. Jensen, Sofie M. Bommerholdt and Katja S. Grunnet	Where does the pollution go? Conceptual understanding of interaction between groundwater and stream
10	Sarianna M. Salminen, Kaarina M. Lukkari and Saija M. Saarni	Impacts of Climate on Long-term Variation in the Abundance of Different Chemical Fractions of Phosphorus in Finnish Archipelago Sea Sediments
11	Philipp Wanner, Eric Bergstedt, Beth L. Parker, Moa Viklund, and Steven W. Chapman	Compound-specific isotope analysis (CSIA) – A reliable method to assess chlorinated solvent degradation in groundwater systems
12 Invited	Jay Frentress, Aryani Atmosudirdjo, Kent Werner	Interpretation of hydraulic responses to borehole drilling and flow logging as planning tools for hydraulic tests
13	Jessica Lindmark, Hedi Rasul, Kent Werner, Sven Follin	Upscaling of bedrock fracture network models for use with porous media groundwater flow modelling tools
14	Liangchao Zou and Vladimir Cvetkovic	Groundwater flow in crystalline rock: flow-log data evolution and predictive modeling
15	Brandon Stock and Andrew Frampton	Application of self-affine fractal methods for generating fractures with internal aperture heterogeneity and impacts on flow
16	Rodney L. Stevens, Carlos Duque, Abdul Qayum Karim, Abdul Hassan Lashkaryee and Laila Zareef	Using qanat (karez) geography and geological setting for estimating groundwater resources

### Poster presentation

Marie-Amélie Pétré, Anu Eskelinen, Jussi Ahonen, Jagarnath Das, Anuradha Gyawali, Sirkku Tuominen and Taina Nystén  
Prosun Bhattacharya, Mahfuzur R. Khan, Imtiaz Choudhury, Iftakher Alam, Mohtasim Shahajad, M.Jahid Alam, K.Matin Ahmed, M.Aziz Hasan, Nargis Akter, Eheteshamul Russel Khan, M.Saifur Rahman, Mattias von Brömssen, Sanjeev Sharma, Morshedul Hasin

Finnish-Nepalese cooperation to develop a conceptual hydrogeological model of arsenic transport in groundwater (Terai, Nepal)  
Drillers mapping and groundwater monitoring in the context of arsenic risk reduction in bangladesh: policy, implementation and sustainability

## **2 Applied Geology as an Engineering Tool: Enhancing Collaboration and Reducing Risks for Infrastructure and Urban Construction**

Magnus Hellqvist, Martin Persson

### Name

#### Oral presentation

	Name	Title
1	Jenny Andersson, Per Nystea, Paul Evins, Iwona Klonowska, Mattias Göransson, and Daniel Buczko	Arsenic rich metasedimentary belts in the Mälardalen region – a primary source of contamination
2	Annina Margreth, Katia Svendy , Espen Torgesen, Fredrik Høgaas, Kari Grøsfjeld, Jasmin Schönenberger, Bjørn Eskil Larsen and Georgios Tasis, Marte Eik Skrede	Unexpected weak zone at the Bergåstunnel construction site – hypotheses about the age and formation
3	Johanna Merisalu, Lars Rosen	Costs and benefits of reducing groundwater drawdown risks in tunnelling
4	Joakim Robygd	Rational and efficient ground investigations for industrialised construction of new railways
5	Tobias Kurz, Jasmin Schönenberger and Jochen Knies	Hyperspectral imaging of drill cores from Heggdal (E39, Møre-Romsdal, Norway) for mineral characterisation and mapping of expansive clays.
6	Sofie Gradmann, Inger-Lise Solberg, Torstein Holmberget and Bjørn Ove Grøtan	Norwegian National Database for Geophysics (NADAG geophysics)
7	Åsa Fransson	Theory, model, and method for coupling and interpreting hydromechanical investigations in the laboratory and in the field - Focus on low rock stress, initial results

#### Poster presentation

Jonna A. Poikolainen and Taina H. Karvonen

Geological approach to Lined Rock Cavern (LRC) design in green transition

### 3 Geothermal energy and geological storage

Maria Ask, Björn Lund

Name

Oral presentation

	Name	Title
1	Torsten Hundebøl Hansen, Simon Blondel, Sian Evans, Rikke Bruhn, Alvar Braathen	CCNS: Evaluating CO <sub>2</sub> -storage potential offshore southern Norway
2	Ulrik Gregersen, Florian W.H. Smit and Henrik Vosgerau	Maturation for potential CO <sub>2</sub> storage in Denmark – The Stenlille and Havnsø structures
3	Glenn Bark, Emelie Craoord, Emily Rees, Christina Wanhaien, Mathis Warlo	Storage of carbon dioxide and hydrogen; geological capacity and risk
4	Chacartegui, R., Behnous, D., Canteli, P., Carneiro, J., Correia, V., Delicado, A., Hampel, U., Kiartzis, S., Koukouzas, N., Nanaki, E., Prades, A., Schmidt-Hattenberger C., Tyrologou, P., Voutetakis, S., Glen Burridge Lars A. Stenvik and Joseph Allen	Novel CO <sub>2</sub> -based electrothermal energy and geological storage system
5	Axel Sjöqvist, Mikael Tillberg and Johan Hogmalm	Hydrogeological field investigations to assess the potential for large-scale utilization of groundwater for cooling at Gardermoen, Norway
6	Maria Ask	Low potential for deep geothermal heat under Gothenburg
7	Alan Bischoff, Michael J. Heap, Perttu Mikkola, Jukka Kuva, Thierry Reuschlé, Ester M. Jolis, Jon Engström, Heini Reijonen, Tuomas Leskelä	A first stress field assessment for geothermal exploration in Gothenburg (borehole GE-1)
8	Iwona Galeczka, Barbara I. Kleine, Jóhann Gunnarsson-Robin, Bergur Sigfússon, and Andri Stefánsson Simona Regensburg, Guido Blöcher, Stefan Kranz, Samuele Frigo, Anna Seres, Christopher A. Rochelle, Jörg Zottmann, Eberhard Falck, Alistair Salisbury, Anita Stein, Márcio Tameirão Pinto, Katrin Kieling, Glen	Hydrothermally altered shear zones: a new reservoir play for the expansion of deep geothermal exploration in crystalline settings
9	Jan Hermansson, Paul M. Evins	The origin and fate of trace metals during CO <sub>2</sub> -charged water injection into basaltic geothermal reservoir, Nesjavellir SW Iceland
10	Kaisa Nikkilä, Pietari Skyttä, Tuomas Kauti, Nicklas Nordbäck, Nikolas Ovaskainen, Jon Engström, Kirsi Pääkkönen, Helena Hansson	CRM-geothermal: Raw materials from geothermal fluids
11	Emelie Craoord, Glenn Bark, Matylda Hermanska , Christina Wanhaien	Rönnskär repository: Site-descriptive model with photogrammetric verification

Poster presentation

Kaisa Nikkilä, Pietari Skyttä, Tuomas Kauti, Nicklas Nordbäck, Nikolas Ovaskainen, Jon Engström, Kirsi Pääkkönen, Helena Hansson

Emelie Craoord, Glenn Bark, Matylda Hermanska , Christina Wanhaien

The relationship of fractures and hydrothermal alteration in fault damage zones in crystalline bedrock

Evaluating the potential for onshore carbon storage through mineral carbonation: Insights from the INSURANCE project

## 4 Slope stability, landslides/avalanches and their secondary effects

Þorsteinn Sæmundsson, Reginald Hermanns, Greta Wells

### Name

#### Oral presentation

	Name	Title
1 Keynote	Dirk Kuhn, Reginald L. Hermanns , Michael Fuchs, Nick Schüßler, Jewgenij Torizin, Juditha Aga, Jacob Bendle, Marie Bredal and Dirk Balzer	Rock slope instability along the Isfjorden coastline and the impact of climate warming
2	Louise Hansen, Anders Romundset, Georgios Tassis, Daniel Wiberg, Malin Andersson, Lina Gislefoss and Sigrid Elvenes	Traces of major landslides in marine clay and a possible Mid Holocene tsunami at Alta, northern Norway
3	Christian Öhring	The Stenungsund Clay Landslide north of Gothenburg: When the main artery between Oslo and continental Europe (E6) was torn apart
4	Kristian Svennevig, Thomas Leqocq, Tine Larsen, Trine Dahl-Jensen, Peter H. Voss, Marie Keiding, Niels J. Korsgaard, Søren Rysgaard, Wieter Boone, Andreas Kjær Dideriksen, Eugenio Ruiz-Castillo, Jeff T. Kerby, Roland Develter and the Dickson Fjord Working Group	The September 16th, 2023 tsunamigenic rock and ice avalanche in Northeast Greenland – preliminary findings
5	Qinghua Lei, Didier Sornette, Haonan Yang, and Simon Loew	A novel dragon-king approach to forecasting catastrophic rock slope failures at Preonzo (Switzerland) and Veslemannen (Norway)
6	Greta H. Wells, Þorsteinn Sæmundsson, Finnur Pálsson, Eyjólfur Magnússon, Guðfinna Aðalgeirsdóttir, Snævarr Guðmundsson and Reginald Hermanns	Proglacial lake evolution and outburst flood hazard at Fjallsjökull, southeast Iceland
7	Andrew Finlayson, Nikhil Nedumpallile-Vasu, Gareth Carter, Nicola Dakin and Rhys Cooper	Subaqueous landslides associated with shoreline infrastructure in steep glaciated terrain, Loch Lomond, western Scotland
8	Þorsteinn Sæmundsson and Halldór Geirsson	What is causing the large scale displacements along the Siglufjarðarvegur road in the Almenningar area, in central N Iceland?
9	Lara F. Pérez; Megan E. Sexton; Freja A. Nielsen; Katrine J. Andresen; Lars Ole Boldreel; Verner B. Ernstsens; Mikkel Fruegaard; Paul C. Knutz; Diana Krawczyk; Nicolaj K. Larsen; Tove Nielsen; Egon Nørmark; Matthew Owen; Christof Pearce; Marit-Solveig Seidenkrantz; Camilla Snowman; Kristian Svennevig	Paleo-landslides and paleo-climate: insights from West Greenland
10	Halldór Geirsson, Þorsteinn Sæmundsson, Sinah Toschka, Ylse Anna de Vries	Episodic and jerky landslide movements at the Tungnakvíslarjökull outlet glacier, south Iceland
11	Susan J Conway, Costanza Morino, Florence Magnin, Philip Deline, Meven Philippe, Calvin Beck, Kristian Svennevig, Alexander Strom, Reginald Hermanns, Xavier Bodin, Carla Tapia Baldis, Dario Trombotto Liaudat, Marianne Font-Ertlen, Benjamin van Wyk de Vries, François Costard, Stuart Dunning, Antoine Lucas, Armelle Decaulne	The “Permolars” project – investigating the factors leading to permafrost landslides and their mobility
12	Reginald L. Hermanns, Jose Pullarello, Einar Anda, Lene Kristensen, Marie Bredal, Paula Snook, Kjetil Indrevær, Raymond Eilertsen, Bjørn Eskil Larsen, Trond Eiken, Henriette Linge, Jesper Olsen	Is the Skutshorn rockslide held back from failure by its foot and could it be eaten up by rock falls prior to a failure event?
13	Léa Dumon Steenssens, Þorsteinn Sæmundsson and Halldór Geirsson	Landslide inventory around Torfajökull volcano, South Iceland, 1958 – 2022
14	Thomas Scheiber, Alexander Mascher, Lukas Schild, Paula Snook, Stig Frode Samnøy, Lene Kristensen, Halgeir Dahle, Jan Helge Aalbu, Helge Henriksen	Monitoring displacement patterns, acceleration and failure (July 2023) at the unstable rock slope Stampa, Western Norway

#### Poster presentation

Oscar Amin, Wilma Rydell

Daniel Ben-Yehoshua, Sigurður Erlingsson, Þorsteinn Sæmundsson, Reginald Hermanns, Eyjólfur Magnússon

Gustaf Peterson Becher, Colby A. Smith

Skafti Brynjólfsson, Hreggviður Norðdahl, Jón Kristinn Helgason, Halldór G. Pétursson

Marius Pytten, Reginald L. Hermanns and Francois Noel

Mass movements in Svalbard: A study of impact on infrastructure in the Longyear Valley

The destabilizing effect of glacial unloading. Svínafellsjökull, SE Iceland

Observations on the recent debris flow in Åre, west-central Sweden.

Large rock slopes failures in Iceland - why and when?

Evaluating the precision of the Schmidt hammer dating method on large rock slope failures and comparative analysis of failure mechanisms

## 5 Urban geology and applies geoscience related to city development

Guri Venvik, Fredrik Mossmark

Name

### Oral presentation

	Name	Title
1	Lundin Frisk E., Svahn V., Mossmark F., Ericsson L. O. Volchko Y. and Norrman J.	Geosystem services – what is it and can it be useful for subsurface planning?
2	Guri Venvik, Fredrik Mossmark, Stephanie Bricker, Francesco La Vigna	EuroGeoSurveys' Urban Geology Expert Group brings geo-related knowledge to the decision makers
3	Linda Wickström, Jonas Ising, Mikael Erlström, Philip Curtis, Björn Wiberg, Eva Wendelin	Geological 3D modelling för urban planning in southwest Scania
4	Christian R. Bryn, Emilie Arntzen Bakken, Oddmund Soldal, and Bjørn Frengstad	Integrating Geological Resources in Areal Planning: a Case Study of the Bømoen Plus Village Project
5	Bjørgunn H. Dalslåen, Sverre Planke and Henrik H. Svensen	Conquering the sub-surface: Taking on the Oslo Rift lava pile and infrastructure development

### Poster presentation

Magnus Ivarsson, Kristoffer Palmgren, Björn Ohlsén and Oona Snoeyenbos-West

Mycoremediation of environmental pollutions in urban areas

## 6 Granite and pegmatite mineral systems: New data - new concepts

Edward Lynch, Axel Müller, Martiya Sadeghi

### Name

#### Oral presentation

	Name	Title
1	Keynote Encarnación Roda-Robles, Alfonso Pesquera, Pedro-Pablo Gil-Crespoa, Idoia Garate-Olave, Jon Errandonea-Martin	Geochemical tracers for LCT Li-rich pegmatites: from granite to apatite composition as indicators of Li-mineralization in the Central Iberian Zone
2	Joel BH Andersson, Edward P Lynch, Martiya Sadeghi, and Tobias E Bauer	Lithium-Caesium-Tantalum pegmatites in the Varuträsk area: Source, transport, trap.
3	Edward P. Lynch, Joel B.H. Andersson, Martiya Sadeghi, Tobias E. Bauer and Irma Bečelytė	Stepwise magmatism and structural reactivation facilitates LCT pegmatite formation: Insights from central Sweden.
4	Martiya Sadeghi, Patrick Casey, Edward Lynch	CODA and AI-based till geochemical pattern recognition applied to mapping and targeting of potential area for lithium mineralization in Västernorrland region, Sweden
5	Per Nysten and Iwona Klonowska	Mineralogical characterization of a phosphate-bearing pegmatite dyke from the Arlanda area, central Sweden
6	Axel Müller, Marco Brönnér, Julian Menuge, Claudia Pohl, Klaus Brauch, Georgios Tassis, Claudia Haase, Ben Williamson, Ana Teodoro, Kerstin Saalmann, Joana Cardoso-Fernandes, Alexandre Lima, Kate Smith, Frances Wall, Douglas Santos, Encarnación Roda-Robles, Mario Hopfner, Idoia Garate-Olave, Jon Errandonea-Martin, John Harrop, Lawrence Carter, William Keyser, Haoyang Zhou, Teimoor Nazari-Dehkordi, Thomas Unterweissacher, Ralf Steiner, Wolfgang Reimer and Carla Pueyo Lloret	The GREENPEG project toolset to explore for buried pegmatites hosting rare metals and high purity quartz to feed the energy transition
7	Laszlo Zorc and Thomas Zack	Discovery of a new rare element pegmatite field in the Southern Gothenburg Archipelago, western Sweden
8	Rune B. Larsen, Kristian drivenes, Axel Müller and Bjørn E. Sørensen	Geothermobarometry of the Evje-Iveland granitic pegmatite district, South-Norway
9	Emil H. Gulbransen, Henrik Friis, William Hutchison and Tom Andersen	Sulphur isotopes and helvite-group minerals of pegmatites in the Larvik Plutonic Complex (LPC), Norway
10	Kristian Drivenes, Rune Berg Larsen, William Brownscombe, Reimar Seltmann, John Spratt, Bjørn Eske Sørensen	Chemical and textural variation of quartz-tourmaline aggregations – Using mineral chemistry to track the magmatic-hydrothermal transition
11	Andreas Karlsson and Thomas Zack	In situ Rb-Sr geochronology of exotic pegmatite minerals, direct dating of polylithionite-trilithionite, pollucite and rhodizite

#### Poster presentation

Irma Bečelytė, Edward P. Lynch, Ulf Söderlund, and Martiya Sadeghi

Petrography and paragenetic implications for the Järkvissle Li-Sn-Ta pegmatite prospect, Västernorrland, Sweden

Patrick Casey, Martiya Sadeghi

Data driven mineral prospectivity mapping using fuzzy methods for LCT pegmatite systems in Västernorrland, Sweden

Orlando Quintela, Steffi Burchardt, Carl Stevenson, Birgir Óskarsson, Iain Pitcairn, Bjarne Almqvist, Tobias Mattsson, William McCarthy, and Marta Sośnicka

Magma batch emplacement in the Slaufrudalur pluton, SE Iceland

## 7 Recent advances in understanding Iron ores; Iron oxide-apatite (Kiruna-type) and iron oxide-copper-gold deposits (IOCG)

Valentin Troll, Tobias Bauer, Ulf B. Andersson, Jens Henriksson

### Name

#### Oral presentation

	Name	Title
1 Keynote	Fernando Tornos, Tobias E. Bauer and John M. Hanchar	Spatial and genetic links between magnetite-(apatite) and IOCG systems
2	Jens S. Henriksson, Valentin R. Troll, Gavin G. Kenny, Ulf B. Andersson and Andreas Karlsson	Formation kinetics of Iron-Oxide-Apatite deposits: Examples from Kiirunavaara and El Laco
3	Tobias E. Bauer, Maxim Yu. Smirnov, Thorkild M. Rasmussen, Leslie A. Logan, Joel B.H. Andersson, Jochen Kamm, Graham Hill and Oskar Rydman	Mafic underplating as a possible source for iron oxide-apatite deposits in Norrbotten, Sweden
4	Lea Gyger, Alireza Malehmir, Musa Manzi, Lilas Vivin, Jean Lepine, Ayse Kaslilar, Oleg Valishin, Paul Marsden and Ronne Hamerslag	Broadband seismic acquisition and processing of iron-oxide deposits in Blötberget, Sweden
5	Nolwenn Coint, Eduardo T. Mansur, Jakob K. Keiding and Øyvind Skårv	Petrogenesis of Fe-Ti-P-(Zr)-rich rocks and nelsonites in the Raftsund intrusion, Vesterålen-Lofoten AMCG suite, Northern Norway.
6	Valentin R. Troll, Jens Henriksson, Ellen Kooijman, Ilya Bindeman	Magnetite chemistry and Fe-O isotopes help unravel origin and affinities of the Malmberget iron oxide-apatite deposit, northern Sweden

#### Poster presentation

Ulf B. Andersson

Structures and textures of liquid immiscibility at Kiirunavaara, Sweden

Ulf B. Andersson, Joachim Pihl, Ann Bäckström, Sören Fröjdö and Olav Eklund

Dyke porphyries in Kiirunavaara: feeders of the hanging wall volcanism

Jens S. Henriksson and Valentin R. Troll

Trace element redistribution in magnetite during metamorphic recrystallisation: Evidence from the Malmberget IOA deposit

Iris van der Werf, Joel B.H. Andersson, Tobias E. Bauer, Thomas Kearney

Character of syngenetic- and hydraulic breccias in the Kiskamavaara IOCG-(Co) deposit, northern Norrbotten, Sweden

Ervin Veress, Oskar Rydman and Tobias E. Bauer

Geological control on petrophysical properties from the Kiruna mining district

Grazina Skridlaite, Laurynas Siliauskas, Ulf Söderlund and Tomas Naeraa

The 1.71 Ga iron mineralization event in the southwestern East European Craton, SE Lithuania: what has caused it?

## 8 Economic geology - Metallogeny of the Nordic countries and beyond

Nils Jansson, Jukka-Pekka Ranta

	Name	Title
1	<u>Keynote</u> Patrick Ledru	Exploring uranium mineral systems: challenges and opportunities
2	Stefanie M. Brueckner, Turner A. Green, b, Merilie A. Reynolds, Daniel Gregory, Ricardo L. Silva, Michael Schindler	The role of metamorphism in vanadium enrichment of organic-rich shales
3	Siim Nirgi, Lennart Maala, Rasmus Kont	Mineral Exploration in Estonia's Crystalline Basement: Insights from Reinvestigated Drill Cores in Northeastern Estonia
4	Iain H.C. Henderson, Eduardo T. Mansur & Alf A. Orvik	Structural controls on Ni-Cu-Co mineralisation in the Jotun-Valdres Nappe Complex, south-central Norway.
5	Karin Högdaal, Erik Jonsson, Magnus Leijd, Anders Zetterqvist, Alexander Hansson and Mikael Bergqvist	The Bergby LCT-type granitic pegmatite field in the Ljusdal lithotectonic unit, central Sweden
6	Iain Pitcairn, Mattias Barkelius , Robert Dunst and Alasdair Skelton	In-situ trace element petrogenetic characterisation of Fe-oxide mineralisation in Bergslagen
7	<u>Keynote</u> Pasi Eilu	Metallogeny of the Nordics: Fennoscandia and Greenland
8	Erik Jonsson, Kjell Billström and Clemente Récio	Quartz oxygen isotope systematics and the fluid source for Au-Ag-Bi-Te-Se-bearing polymetallic vein deposits in southwestern Sweden
9	Viktor Bertrandsson Erlandsson, Timothy Mitterdorfer, Ales Soster, Monika Feichter and Frank Melcher	New insights on the Agnmygruvan Pb-Zn deposit in central Sweden from microscopy, UV-light imaging, and LA-ICP-MS
10	Stefan S. Andersson, Erik Jonsson and Martiya Sadeghi	Different styles of Na, K and Mg-Fe alteration and REE mobilisation in the Riddarhyttan and Norberg ore districts, Bergslagen, Sweden
11	Robert Dunst, Iain Pitcairn, Nils F. Jansson	An attempt to quantify element mobility during hydrothermal alteration in Bergslagen with a regional least altered database, Sweden
12	Filip Simán, Nils Jansson, Tobias Hermansson, Fotini Liwicki, Mac Fjellerad Persson, and Erik Nordfeldt	Alteration and mass balance calculation at the Rävliden North VMS deposit, Skellefte district, Sweden
13	Eszter Sendula, Carly Faber, Sabina Strmić Palinkaš, Leif-Erik Rydland Pedersen, Tatsuo Nozaki, Hironao Matsumo	Effect of deformation and metamorphism on metal redistribution at the Sulitjelma volcanogenic massive sulfide deposits
14	Nikita Malafeevskiy,*, Kurt Aasly, Stefanie Lode, Rune B. Larsen	Characterization of historical Joma mine tailings using automated mineralogy
15	Mattias Barkelius, Iain Pitcairn, Robert Dunst and Alasdair Skelton	n-situ petrographic description of banded iron formation and skarn-hosted Fe ore on Utö, Bergslagen
16	Espen Lundberg Simonstad, Ståle Monstad, Maxime Lesage, Yang Xiao Sheng	Test processing of Seafloor Massive Sulphide (SMS) ore with VMS ore
17	Robert Dunst, Iain Pitcairn, Hein Raat, Nils F. Jansson and Andreas Karlsson	A lithological context for stratabound REE mineralisation at the birthplace of REE – Bastnäs, Riddarhyttan, Sweden
18	Nils F. Jansson, Jenny Andersson	SIMS U-Pb constraints on the origin of 1.89 Ga marble- and skarn-hosted Zn-Pb-Ag sulphide deposits, Sala area, Bergslagen, Sweden

### Poster presentation

M. Dávid Csoma, Jo Miles, Johan Hilmo, Sean Géhin

Anna Ladenberger, Ronad Arvidsson, Roger Hamberg, Stefan Sädbom, Erik Ronne, Teemu Karlsson and Björn Viberg  
Erik Jonsson

Nolwenn Coint, Eduardo T. Mansur, Ana Carolina R. Miranda, Ying Wang, Florent Szitkar, Pedro Acorsta-Gongora, Iain Henderson, Vikas C. Baranwal, Aziz Nazuti, Tord Andersen and Laurent Gernigon

Ana C. R. Miranda, Nolwenn Coint, Eduardo T. Mansur and Sarah Dare

Surface outcrops in the Per Geijer area: macro-scale observations in limited drilling areas

FUTURAM – Securing the supply of secondary & critical raw materials in the EU

Critical metals in historical smelter slags from Bergslagen, Sweden: examples from the Riddarhyttan district

Assessing the prospectivity for Fe-Ti-P-(REE) mineralization in the southern part of the Permian Oslo Rift, Norway

The Kodal Fe-Ti-P deposit in the Permo-Carboniferous Larvik Plutonic Complex, Oslo Rift, Norway: using the distribution of trace elements in Fe-oxides and apatite to constrain ore-forming processes

## 9 Geochemical microanalysis - analytical advances and applications

Ellen Kooijman, Thomas Zack

### Name

#### Oral presentation

	Name	Title
1	Invited Heejin Jeon and Martin J. Whitehouse	Looking into a microscale with high resolution (spatial, volume and mass) using LG-SIMS: multifaceted applications at NordSIMS
2	Henrik Drake, Nick M. W. Roberts, Martin Whitehouse	Micro-scale SIMS and LA-ICP-MS analyses reveal fracture mineral infillings are archives for intermittent paleo fluid-flow and ancient microbial activity
3	Jacob Gustafsson, Gordon R. Osinski, Martin Whitehouse and Henrik Drake	Isotopic evidence of microbial colonisation of the Lappajärvi impact structure, Finland
4	Yuan Shang, Quentin Dehaine, Yann Lahaye, Xuan Liu, Minna Myllyperkiö	Application of geochemical micro-analytical methods in tracing Nickel through the battery value chain: a case study from Finland
5	Stefanie M. Brueckner, Brayden Dudley, Ravinder Sidhu, Tim Sanford	The origin of pyrite-sphalerite banding in metamorphosed volcanogenic massive sulphide deposits: Using EBSD, EPMA and LA-ICP-MS
6	Stefanie Lode, Camilo M. Silva, Jostein Røstad, Ezgi Akyıldız, Kurt Aasly, Pshem Kowalcuk, and Trond Watne	Automated mineralogy of complex carbonatite-hosted rare earth element (REE) minerals
7	Nils B. Gies, Jörg Hermann, Pierre Lanari	Multi-dimensional classification and correlation of water and trace element maps in a magmatic clinopyroxene using SpecXY.
8	Bjørn Eske Sørensen, Eric Jamesw Ryan ; Rune B. Lasen , Stefanie Lode and Jostein Røstad	Quantifying CRYSTALLOGRAPHICAL ORIENTATATIONS OF PLANAR DEFORMATION FEATURES IN OLIVINE USING COMBINED OPTICAL AND EBSD DATA
9	Simon J. Cuthbert, James O. Buckman, Iwona Klonowska, Adam Włodek, Oliver Lehnert	Feature mapping protocol for grain selection in preparation for in-situ- U-Pb geochronology: Shales and phyllites from the COSC-2 deep borehole
10	David M. Chew, Kerstin Drost, Vincent Monchal	Precise U-Pb dating of incremental calcite sickenfiber growth by LA-ICP-MS imaging: Evidence for far-field Eocene fold reactivation in Ireland
11	Keynote Lorraine Tual, Matthijs A. Smit, Jamie Cutts, Ellen Kooijman, Melanie Kielman-Schmitt, Kira Musiyachenko, Jarosław Majka, Ian Foulds	Taking the pulse on garnet through high-precision Lu-Hf domain chronology
12	Matthijs A. Smit, Johannes C. Vrijmoed, Erik E. Scherer, Klaus Mezger, Ellen Kooijman, Melanie Kielman-Schmitt, Lorraine Tual, Carl Guillette, Lothar Ratschbacher	New insights into the origin and fate of REE zoning in garnet from in-situ trace-element mapping
13	Invited Renée Tamblyn, Alexander Simpson, Sarah Gilbert, Martin Hand, Benjamin Wade, Stijn Glorie	In-situ Lu-Hf garnet geochronology by LA-ICP-MS/MS
14	Christopher J. Barnes, Thomas Zack, Delia Rösel, Alfredo Camacho, Michał Bukała, Renelle Duboscq	Differing behaviour of Sr and 40Ar in white mica as a function of deformation and fluid-mediated chemical exchange
15	Thomas Zack	What do in-situ Rb-Sr mica ages tell us? Lessons learned from the Greater Gothenburg area

#### Poster presentation

Maarit Kallikoski, Saija Saarni, Tapio Suominen and Timo Saarinen

Ellen Kooijman, Martin J. Whitehouse, Chris Mark, Heejin Jeon, Alessandro Maltese and Andreas Karlsson

Using micro-XRF for characterization of geochemical environments in annually laminated lake sediments from Central Finland

NordSIMS-Vegacenter: analytical advances and novel methods

## 10 Geochemistry: Open Session

Henrik Drake

Name

### Oral presentation

	Name	Title
1	Femke van Dam, Riikka Kietäväinen, George Westmeijer, Shuhei Ono, Mark Dopson, Marcelo Ketzer, Jennifer C. McIntosh, Henrik Drake	Isotope geochemical characterization of deep subsurface microbial methanogenesis at the Siljan impact structure, Sweden
2	Karl Ljung, Edward Allison, Ethan Silvester, Dan Hammarlund	Lake record of black carbon from southern Sweden reveals increased flux in the early 18th century
3	Ninni Jeremiassen, Yu Jia, Violeta Hansen, Henrik Friis and Thomas Ulrich	Leaching dynamics of Pb, Zn, and F: Short-term leaching of waste rock from the Ivittuut mine site, South Greenland
4	Maria I. Chambi, Israel Quino, Mauricio Ormachea, Oswaldo Ramos and Prosun Bhattacharya	Hydrochemistry and spatial variation of Arsenic, Boron and other trace elements in water bodies, Sud Lipez of the Bolivian Altiplano
5	Vimbainashe L. Dzimbanhete, Lena Alakangas, Oscar Paulsson, and Torbjörn Karlsson	Analytical Tools and Techniques for Assessing Uranium Sources and Mobility along a Mine Value Chain: A Case Study of an Iron Ore Mine in Northern Sweden
6	Johannes Vind, Kaarel Mänd, Kalle Kirsimäe	Geochemical Conditions During the Deposition of Tremadocian Alum Shale in the Baltic Paleobasin of Northern Estonia
7	Alessandro Maltese, Guillaume Caro, Erik E. Scherer, Peter Sprung, Wouter Bleeker, Klaus Mezger	Inferred Hadean crustal composition and evolution through coupled $^{146,147}\text{Sm}$ - $^{142,143}\text{Nd}$ systematics in Paleoarchean Acosta Gneisses

### Poster presentation

Patrick Casey, George Morris and Martiya Sadeghi

Rikke Vestergaard, Daniel D. Dunkley, Marcin J. Miesczak, Monika A. Kusiak and Lars Eivind Augland

Katelyn E. Murphy, Sarah Conrad and Lena Alakangas

Anna Neubeck, Anna Ladenberger

Karl Ljung, Danny Wong, Helena L Filipsson and Simon Belle

Alexandra Nyberg, Mats Willner, Miriam Nystrand and Peter Österholm

Principle component analysis applied to till samples and its use in prospectivity mapping of the REE Line, Bergslagen, Sweden

New zircon U-Pb-Hf isotope constraints on the crustal growth and crustal recycling in the southern Nagssugtoqidian Orogen of West Greenland

Geochemistry of neurodegenerative diseases

Polymetallic-phosphate-TOC associations in Swedish alum shales

Black carbon cycling and accumulation after a mega-fire in a boreal forest in Sweden

Effects of gypsum treatment on sulfate and nutrient mobility in farmlands of SW-Finland

## 11 Subaerial and subaqueous mafic magmatism in the Nordic Region

Valentin R. Troll, Thor Thordarson, Frances M. Deegan, Armann Höskuldsson

### Name

#### Oral presentation

	Name	Title
1 Keynote	Christian Tegner, Torgeir B. Andersen, Hans Jørgen Kjøll, Eric L. Brown, Graham Hagen-Peter, Fernando Corfu, Sverre Planke, and Trond H. Torsvik	Dyke Complexes of the Scandinavian Caledonides
2	Valentin R. Troll, Brian G.J. Upton, C. Henry Emeleus, Colin H. Donaldson	The Central Series of the Rum Igneous Complex, NW Scotland: the rises and falls of magma in a large mafic-ultramafic volcano of the early NAIP
3	Jack W. Whattam, Henrik H. Svensen, Ivar Midtkandal, Dougal A. Jerram, Sara Callegaro	Mafic volcanioclastic deposits in the Oslo Rift
4	Sara Callegaro, Henrik Hovland Svensen, Thea Hatlen Heimdal, Hans Jørgen Kjøll, Andreas Olaus Harstad, Lars Eivind Augland, Manfredo Caprioli, Bjørgunn H. Dalslæn, Else Ragnhild Neumann	Geochemistry of sills from the early stage of the Oslo Rift
5 Invited	Jussi S. Heinonen, Eric L. Brown, Sanni T. Turunen and Arto V. Luttinen	Heavy rare earth elements and the origin of primitive volcanic rocks
6	Méline Payet--Clerc, Ármann Höskuldsson , Thor Thordarson, Guillaume Carazzo and William M. Moreland	Evolution of the eruptive plume through image and tephra analysis and physical plume modelling, study of the Eyjafjallajökull 2010 eruption
7	Eemu Ranta, Christoph Beier and Sæmundur A. Halldórsson	The making of monogenetic lava shields: a case study of the mid-Holocene Trölladyngja eruption, Iceland
8	Thorvaldur Thordarson, Ármann Höskuldsson, Ingibjörg Jónsdóttir, William M. Moreland, Iðunn K. Valdimarsdóttir, Jóna S. Pálmaðóttir, Méline Payet—Cerc, Diana B.D.S:G. Alvarez, Jacqueline Grech Licari, Catherine R. Gallagher, Helga K. Torfadóttir, Lidia Strohganova, Robert A. Askew, Eva Eibl, and Valentin R. Troll	The 2021, 2022 and 2023 eruptions of Fagradalsfjall Fires, Reykjanes Peninsula Iceland
9	William M. Moreland, Thor Thordarson, Ármann Höskuldsson, Ingibjörg Jónsdóttir, Helga Kristín Torfadóttir, Méline Payet—Clerc, Iðunn Kara Valdimarsdóttir, Jacqueline Grech Licari, Jóna Sigurlína	The 2022 Meradalir eruption of the 2021-23 Fagradalsfjall Fires, Reykjanes Peninsula, and associated phenomena
10	Ioana-Bogdana Radu, Henrik Skogby, Valentin R. Troll, Frances M. Deegan, Harri Geiger, Daniel Müller and Thor Thordarson	Water in clinopyroxene from the 2021 Geldingadalir eruption of the Fagradalsfjall Fires, SW-Iceland – a mineralogical perspective
11	Frances M. Deegan, Ilya N. Bindeman, Valentin R. Troll, Thor Thordarson, Ármann Höskuldsson, William M. Moreland, Edgar U. Zorn, Alina V. Shevchenko and Thomas R. Walter	Oxygen isotope composition of basalts from the 2021 Fagradalsfjall eruption, Iceland

#### Poster presentation

Ármann Höskuldsson, Fernando Martinez, Richard Hey, Lucia A Walters, Daniel Thorhallsson, Thor Thordarson

Guro L. Andersen, Henrik H. Svensen, Lars E. Augland, Sara Callegaro and Jack W. Whattam

Gabriel Zachén and Ulf Söderlund

Diana Brum da Silveira, Thorvaldur Thordarson, Ármann Höskuldsson and William M. Moreland  
Helga Kristin Torfadottir, Armann Hoskuldsson, Juan Andujar, Bruno Scaillet, Alan B. Woodland and Thor Thordarson

Thor Thordarson, and Ármann Höskuldsson

Iðunn Kara Valdimarsdóttir, Ármann Höskuldsson, William M. Moreland, Thor Thordarson, Børge Johannes Wigum, Björn Davíð Þorsteinsson, Birta Dís Jónsdóttir Blöndal

Off rift volcanism at the Bight rift segment, north Atlantic

The explosive volcanism of the Oslo Rift – insights from the ignimbrites of the Drammen Caldera

The Biggest “Buttes” of Scania?

The 3ka Búrfellshraun lava flow field, Northeastern Iceland: lava dynamics and surface morphology  
Phase equilibria and pre-eruptive conditions for basaltic magmas at Öræfajökull volcano via the peripheral promontory Ingólfshöfði, Iceland

Holocene volcanic and magmatic activity at the Reykjanes Volcanic Belt Iceland

The complex formation of glaciovolcanic ridges

### **13 Archaean through Mesoproterozoic geodynamic evolution of the Fennoscandian Shield**

Trond Slagstad, Mikael Andreas Petersson, Nick M. W. Roberts, Iain Henderson, Alasdair Skelton

#### Name

#### Oral presentation

	Name	Title
1	Jaana Halla, Kumar B. Joshi, Esa Heilimo and Matti Kurhila	The origin of the Archaean Lake Inari TTG-amphibolite complex of the Lapland-Kola Province, northern Finland
2	Matthijs A. Smit,b, Kira A. Musiyachenko, Jeroen Goumans	Archaean TTGs derive from mafic cumulates buried within the roots of proto-continents
3	Julius Schönherr, Trond Slagstad, Bjørn Eske Sørensen	Bedrock mapping, zircon U-Pb geochronology and Lu-Hf isotopes of the Archaean Kirkenes Gneiss Complex, Kola Craton
4 Invited	Alf A. Orvik, Trond Slagstad, Eduardo T. Mansur, Bjørn E. Sørensen, Lars P. Nilsson	Chalcophile geochemistry of the Ni-Cu-PGE mineralised 2.05 Ga conduits in the Karasjok Greenstone Belt, northern Norway
5	Åke Johansson, Stefan Claesson, Andreas Karlsson, Karin Högdahl, Thomas Lundqvist	Geochronological data from newly discovered or rediscovered rock units in the southern archipelago of Stockholm
6	Joakim Mansfeld and Alasdair Skelton	The metamorphic evolution on Utö
7	Esa Heilimo and Perttu Mikkola	Isotopic evidence from crustal growth during the Svecofennian orogeny – a study from the Central Finland Granitoid Complex
8	Evgenia Salin and Krister Sundblad	The well- and unknown Vetlanda sedimentary sequence
9	Anna E. Johnson, Olav Eklund, Jussi S. Heinonen	1865 Ma Svecofennian extensional magmatism in Nagu, SW Finland
10	Krister Sundblad, Bence Balogh, Evgenia Salin, Kjell Billström and Jüri Plado	Interaction between Svecofennian crust and rapakivi granites along the SW margin of the Wiborg Batholith, southern Finland
11	Joakim Mansfeld, Erik Sturkell, Karin Högdahl and Lena Lundqvist	The Börön volcanic suite and the initial closure of the Bothnian Basin
12	Olav Eklund, Sören Fröjdö, Oliver Teräs	Formation of the granite-migmatite belt i S Finland by transtensional tectonics

#### Poster presentation

Trond Slagstad, Nick M.W. Roberts, Andreas Petersson

Subduction and loss of continental crust during the Mesoproterozoic Sveconorwegian Orogeny

Marek Zastąpiło, Bjørn Eske Sørensen, Stefanie Lode, Trond Slagstad

The tectonometamorphic evolution of northeastern Fennoscandia

Stefan W. Luth, Espen Torgersen and Juha Köykkä

Lithotectonic map of Fennoscandia

Oda Kristine Vogt, Trond Slagstad, Bjørn Eske Sørensen

Mapping of mafic dykes in the Archaean Kola craton in Sør-Varanger, and testing the applicability of in situ LA-ICP-MS Sm-Nd isotope analysis in apatite

## 14 General geology: Open Session

Henrik Drake

Name

### Oral presentation

	Name	Title
1 Invited	Vivi Vajda, Ashley Kruger, Olena Shevchuk, Daniela Quiroz, Jungang Peng, Sam Slater	Triassic and Jurassic of Sweden - fauna and flora in a disturbed ecosystem
2	Taylor Witcher, Steffi Burchardt, Tobias Mattsson, Michael J. Heap and Anne Pluymakers	Fracture-driven magma degassing pathways in intruding rhyolitic magma
3	Yang Lu, Anton Sednev-Lugovets, Patricia Carvalho, Matylda Guzik, Kristina Dunkel, Håkon Austrheim and Henrik Friis	Dypingite as a series and its formation from serpentinite weathering

### Poster presentation

Olena Shevchuk, Steve McLoughlin and Vivi Vajda

The war in Ukraine - its impact on scientific collections, scientists and their research

## 15 Structural geology and Tectonics: Open Session

Po Wan Wong

Name

### Oral presentation

	Name	Title
1	Pierpaolo Guarneri, Christian Tegner, Charles Kent Brooks	Structures and magmatism associated to a triple junction in Traill Ø, East Greenland
2	Po Wan Wong, Ivar Midtkandal, and Jan Inge Faleide	Early Paleogene rift-to-drift transition at the NE Atlantic – new insights from rift propagation and paired extension-compression
3	Thorkild M. Rasmussen, Roshanak Vadoodi and Tobias E. Bauer	The discovery of a regional scale strike-slip fault in northern Sweden through reevaluation of potential field data
4	Thorben Schöfisch, Hemin Koyi, Bjarne Almqvist and Stefan Lüth	The significance of initial fabric during deformation
5	Thushan C Ekneligod and Herbert Henkel	Assessment of the porosity and density structure of complex impact structures based on their strain distribution

## **16 Petrology: Open Session**

Henrik Drake

Name

### Oral presentation

	Name	Title
1	Ole Skursch, Tom Andersen, Fabrice Dal Bo, Sven Karup-Møller and Henrik Friis	Compositional controls on the rinkite-(Ce)-nacareniobsite-(Ce) solid solution series
2	Kristina G. Dunkel, Sascha Zertani and Bjørn Jamtveit	Metamorphic zoning in plagioclase from the Caledonides recording transient events

### Poster presentation

Benjamin Eskesen, Kathrin Fassmer, Carsten Münker, Thomas Ulrich, Kristoffer Szilas, Simon Wagner, J. Elis Hoffmann, Thorsten J. Nagel	Neoarchean synkinematic metamorphic peak in the Isua supracrustal belt (West Greenland)
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## 17 Mineralogy - new insights and future opportunities

Dan Holtstam, Henrik Friis

	Name	Title
<b>Oral presentation</b>		
1 Keynote	Fernando Cámará	Swedish ericssonite-group minerals
2	Andreas Karlsson, Fabrice Dal Bo, Henrik Friis, Erik Jonsson, Thomas Zack and Axel S.L. Sjöqvist	A new Zr-Ti-silicate related to rosenbuschite from the agpaitic rocks of Norra Kärr, southern Sweden
3 Invited	Alice Taddei, Luca Bindi, Paola Bonazzi, Patrick Casey, Hans-Jürgen Förster, Dan Holtstam and Andreas Karlsson	An unusual epidote supergroup mineral: A solid solution containing the new (OH)-analogue of dollaseite-(Ce)
4	Bendik S. Frantzen, Kurt Aasly, Bjørn E. Sørensen	The high temperature, low-pressure phase transitions of crystalline silica
5	Dan Holtstam, Jörgen Langhof, Henrik Friis, Andreas Karlsson & Muriel Erambert	The minium mineral group
6	Kristian Drivenes, Bjørn Eske Sørensen, Magdalena Huyskens, Iris Buisman	Magmatic or hydrothermal epidote?

### Poster presentation

D. Holtstam, A. Hassani and H. Skogby

Untold stories of the Veramin mesosiderite

Daniel Larsson, Johan Söderhielm, Dan Holtstam and Andreas Karlsson

Vavřinité ( $Ni_2SbTe_2$ ) and gold from the Palaeoproterozoic Lainjaur Ni-Cu-Co deposit in Malå district, northern Sweden

Erik Jonsson and Simon Pieslinger

On the ore mineralogy of the Bi-Te-rich Enåsen Au-Cu deposit, central Sweden

Kristian Drivenes, Iris Buisman, Nolwenn Coint, Magdalena Huyskens, Rune Berg Larsen, Bjørn Eske Sørensen

Super- and Subsolidus Processes in the Røvsnes Granodiorite Recorded by Titanite

Per A. E. Danielsen, Henrik Friis and Tom Andersen

New insight into jarlite and jørgensenite, two rare Sr-fluorides from Ivigtut, South Greenland

## 18 Metasomatism

Matthias Konrad-Schmolke, Håkon Austrheim

Name

### Oral presentation

	Name	Title
1	Matthias Konrad-Schmolke and Ralf Halama	Fluid pathways and fluid-rock interaction mechanisms during high pressure metasomatism
2	Bjørn Eske Sørensen, Eric James Ryan ; Rune B. Lasen , Stefanie Lode	Effect of volume changes on style of mineral reactions during mixed-volatile infiltration in ultramafic-mafic rocks from the Reinfjord lower crustal field laboratory
3	Kristian Drivenes, Jochen Knies, Tobias Kurz, Annina Margreth and Jasmin Schönenberger	From high-T Hydrothermal Alteration To Near-Surface Weathering – The Alteration History of the Rolvsnes Granodiorite, W Norway
4	Francesco Nosenzo, Paola Manzotti and Marin Robyr	H <sub>2</sub> O budget and high-pressure re-equilibration in polycyclic rocks: a case study from the Dora-Maira Massif (Western Alps)
5	Nils B. Gies, Matthias Konrad-Schmolke, Jörg Hermann	Modelling the global water cycle – the effect of Mg-sursassite and phase A on deep slab dehydration and the global subduction zone water budget
6 Keynote	Wolfgang Bach, Elmar Albers, Frieder Klein, Tim Schroeder, and Christian Hansen	Metasomatic processes in the formation and evolution of oceanic crust
7	Håkon Austrheim and Torgeir B. Andersen	Extreme enrichment of Arsenic and Antimony during formation of Ni-Cr-rich jasper and quartzite from serpentinized peridotite
8	Michał Bukała, José A. Padrón-Navarta, Manuel D. Menzel, Vicente López Sánchez-Vizcaíno and Carlos J. Garrido	The microstructural record of high-pressure modulated deserpentinisation
9	Sampriti Basak and Kristoffer Szilas	Beyond Beauty: Chronicles of the world's oldest rubies from Greenland
10	Alexander Lewerentz and Alasdair D.L. Skelton	Fault-controlled, kilometre-scale fluid-rock interaction in a late-orogenic setting: insights from C and O isotope profiles from Lismore, Scotland

### Poster presentation

Jochen Knies, Marco Brønner, Giulio Viola, Annina Margreth, Guri Venvik, Roelant van der Lelij, and Jasmin Schoenenberger  
Ane K. Engvik, Claudia A. Trepmann and Håkon Austrheim

Basement fracturing and weathering on- and offshore Norway, the BASE projects

Microfabric evolution during metasomatism and deformation, exemplified by the nodular sillimanite gneisses (Bamble lithotectonic domain, South Norway)

## **19 Marine geology records of Quaternary to late Holocene changes in North Atlantic Ocean circulation with a special reference to Arctic and North European climate**

Irina Polovodova Asteman, Marit-Solveig Seidenkrantz, Antoon Kuijpers

### Name

#### Oral presentation

	Name	Title
1	Ludvig Löwemark and Akanksha Singh	Recent insights into the radiocarbon dating of Arctic Ocean sediments
2	Helena L. Filipsson, Nadine B. Quintana Krupinski, Andreas Mackensen, Yasmin Bokhari Friberg, Anne-Sophie Fanget, Jonas Donnenfield, Karen Luise Knudsen, Jeroen Groeneveld, Marit-Solveig Seidenkrantz	Unravelling Massive Meltwater Events: Fennoscandian Ice Sheet and Its Potential Role in North Atlantic Heinrich Events
3	Bjørg Risebrobakken, Yunyi Wang, Chuncheng Guo, Kirsten Fahl, Rüdiger Stein, Dag Inge Blindheim, Andrzej Witkowski, Trond Dokken, Eystein Jansen, Guido Vettoretti, Marlene Klockmann, Amandine Tisserand, Juliette Supiot Tessiere	ABRUPT Arctic Climate Change: Stadial to interstadial climate change in the Fram Strait and connections to the eastern Nordic Seas
4	Dhanushka Devendra, Magdalena Łącka, Małgorzata Szymczak-Żyła, Magdalena Krajewska, Natalia Szymańska, Marek Zajączkowski	Post-glacial fluctuations in ocean currents and their impact on the environment of the Eastern Nordic Seas
5	Kristin Doering, Jens Weiser, Stephanie S. Kienast, Markus Kienast, Dierk Hebbeln, Martin Frank and Ralph Schneider	The influence of source waters on the Holocene nutrient cycle in the Labrador Sea: A multiproxy approach of stable isotopes
6	Mattia Ferraro, Bjørg Risebrobakken, Irina P. Asteman, Elin M. K. Darelius, Amandine A. Tisserand, Matthias Moros	Multi-century reconstruction of environmental conditions in Lurefjorden, Norway
7	Klara Friedrich Bachmann Eriksen and Lars Ole Boldreel	Investigation of contourites in the south-western maritime area of the Faroe Islands

## 20 Geoscience for Offshore Wind and Marine infrastructure

Benjamin Bellwald, Katrine Juul Andresen, Verner Brandbyge Ernstsen, Victoria Adestål , Oscar Fransner

	Name	Title
	<b><u>Oral presentation</u></b>	
1 Keynote	Margaret A. Stewart	Understanding Tunnel Valleys in the North Sea: a 200-year history of enigmatic subglacial landforms
2	Dag Ottesen, Julian A. Dowdeswell, Christine Batchelor, James Kirkham, Lilja R. Bjarnadottir	The geological evolution of the Norwegian shelf during the Quaternary
3 Invited	Hannah E. Petrie, Christian H. Eide, Haflidi Haflidason, Jo Brendryen & Timothy Watton	A geological characterization of the Sørlige Nordsjø II offshore wind site, southern North Sea
4	Aurora M. Garcia, Benjamin Bellwald, Tor O. Sømme, Orlando M. Bautista, Sverre Planke, Ingrid Anell, Reidun Myklebust, Ivar Midtkandal	Paleogeographic reconstruction of the Peon area in the Northern North Sea: Implications for ground conditions
5	Thea S. Faleide, Scott A. Smith and Karoline H. Løvlie	Interpreting X-ray Images of Sediment Samples for Offshore Site Investigations
6	Scott A. Smith, Pauline Suzuki and Thea S. Faleide	Multi-Sensor Core Logging of Shallow Seabed Sediments for Subsea Power Cable Design: A North Sea Case Study
7	Bodil W. Lauridsen, Katrine E. Hansen, Rishmita Mukherjee, Lasse T. Prins, Paul C. Knutz and Hans Røy	SEEP ecology – a multiproxy approach to establish a seabed ecological baseline in the North Sea prior to human activities in the subsurface
8 Invited	Natasha Morales, Julia Haberkern and Stefan Wenau	Characterization of glacial and interglacial deposits in the German North Sea from the integration of CPT and UHR MCS wind farm data
9	Thomas Mestdagh, Ruth Plets, Tine Missiaen, Hakan Saritas, Harisma Andikagumi, Marc De Batist, Bruno Stuysts and Hans Pirlet	Clay Tectonics: investigating the influence of clay tectonic deformations on offshore windfarm development on the Belgian Continental Shelf
10	Nicola C. Dakin, Scott A. Smith, Rory Mortimore, Dayton Dove	Chalk: an updated stratigraphy and insights into periglacial weathering profiles, offshore windfarm, UK
11	Oscar Fransner	Examples of the impact of formerly glaciated terrains on marine infrastructure projects in the North Sea and in the Baltic Sea
12	Sergei Medvedev, Dmitry Zastrozhnov, Viktor Spiridonov, Nils C. Prieur, Andrei Zastrozhnov and Sverre Planke	Automatic boulder detection and boulder field properties: Techniques and practical applications

### **Poster presentation**

Lasse T. Prins, Bodil W. Lauridsen, Katrine E. Hansen, Ole R. Clausen, Hans Røy, Paul C. Knutz

Tools for understanding shallow gas in the Danish North Sea

## 21 Geophysics: Open Session

Erik Sturkell & Halldór Geirsson

### Name

#### Oral presentation

	Name	Title
1	Maxim Yu. Smirnov, Oskar Rydman, Thorkild M. Rasmussen, Tobias E. Bauer, Jochen Kamm, Graham Hill, Jan Vozar	D-REx project in Fennoscandia
2	Georgios Tassis, Axel Müller, Bjørn Eskil Larsen and Marco Brönnér	Investigating NYF-type Pegmatite deposits in Tysfjord, Norway, using ground geophysics
3	Anton Harrsen, Martin Laier and Louise Vad-Pickering	Application of 2D and 3D mUHRS surveys on Mjøsa lake, Norway. A first-of-its-kind 3D survey on a lake
4	Alexander Minakov, Maxim Smirnov, Kim Senger, Peter Betlem, Jan Inge Faleide, Anniken Helland-Hansen, Rafael Kenji Horota, Horst Kämpf, Agnes Kontny, Sverre Planke, Sebastian Tappe, Maria Telmon, Shunguo Scott A. Smith, Thea S. Faleide, Luke Griffiths, T. Dylan Mikesell, Elizabeth Petrie and Elin Skurtveit	3-D magnetotelluric survey of a Miocene-Quaternary volcanic province in NW Svalbard
5	Santiago Arellano, Bo Galle, Melissa Pfeffer	Variations in Rock Strength and P-wave Velocities in a Natural CO <sub>2</sub> Leaking Fault Zone
6	Annakaisa Korja, Päivi Mäntyniemi, Björn Lund, Niranjan Joshi, Mathilde Böttger Sörensen, Maren Karlsen, Ludovic Fülop	Analysis of radiation transport effects on passive remote sensing of SO <sub>2</sub> from the Bárðarbunga fissure eruption at Holuhraun, Iceland
7	Erik Sturkell, Freysteinn Sigmundsson, Michelle Parks, Halldór Geirsson, Ásta Rut Hjartardóttir, and Talfan Barnie	Initiating Fennoscandian Seismic Hazard Map
8	Michelle M. Parks, Erik Sturkell, Freysteinn Sigmundsson, Vincent Drouin, Sigrún Hreinsdóttir, Andrew Hooper, Yilin Yang, Benedikt G. Ófeigsson, Ásta R. Hjartadóttir, Ronni Grapenthin, Halldór Geirsson, Elisa Trasatti, Sara Barsotti, Rikke Pedersen, Páll Einarsson, Bergrún A. Óladóttir, Hildur M. Friðriksdóttir	Decades of deflation of the Askja volcano, Iceland, prior to ongoing inflation
9	Halldór Geirsson, Michelle Parks, Chiara Lanzi, Áslaug Gyða Birgisdóttir, Vincent Drouib, Cécile Ducrocq, Freysteinn Sigmundsson, Benedikt Ófeigsson, Páll Einarsson, Kristín Jónsdóttir, Kristín Vogfjörð, Sigrún Hreinsdóttir, Sonja Greiner	Recent unrest (2021-2023) at Askja volcano, Iceland
10	Fenna Ammerlaan, Aleksandra Smyrak-Sikora, Kim Senger, Marie-Andrée Dumais, Jomar Gellein, Tereza Mosočiová , Marco Brönnér, Erik P. Johannessen, Tormod Henningsen	Reykjanes Peninsula unrest 2020-2023, Iceland: Deformation history of multiple volcanic systems

#### Poster presentation

Fenna Ammerlaan, Aleksandra Smyrak-Sikora, Kim Senger, Marie-Andrée Dumais, Jomar Gellein, Tereza Mosočiová , Marco Brönnér, Erik P. Johannessen, Tormod Henningsen

Gravity surveying onshore Svalbard: forward modeling and data integration

## 22 Geoscience education - Investigation of teaching and learning

Abigail Barker, Mattias Lundmark

### Name

#### Oral presentation

	Name	Title
1 Keynote	Rie H. Malm	Learning and working in the field: on belonging, identity and educational spaces
2	Nils F. Jansson, Sibila Borojević Šoštaric, Gabriela Paszkowska, Luis Lopes, Alberto Sanchez Miravalles, Ana Marićić and Ferenc Mádai	TIMREX: An EIT-Labelled Master's Program Transforming Mineral Exploration Education for Innovation, Entrepreneurship, and Sustainability
3	Sebastian Willman, Abigail K. Barker, Rie H. Malm and Mattias Arrhenius	What do students learn about stratigraphy?
4	Roland Barthel	Hydrogeology education in Sweden: are our curricula designed to meet society's demands?
5	Richard Gyllencreutz, Martin Jakobsson and Elisabeth Däcker	A new marine geoscience education at Stockholm University
6	Kirsty Dunnett, Thomas J. Barnes, and A. Mattias Lundmark	Are textbooks making Isostasy unnecessarily hard for students to get to grips with?
7	Elena V. Brattebø and Siri Tungland	Students as partners – obstacles, possibilities and solutions in Norwegian Earth science education
8	Julie Guttormsen and Kari Beate Remmen	Geology in science teacher education in Norway: introducing a textbook integrating geological knowledge and geology education
9	Kari Beate Remmen and Øystein Sandnes Rønning	Sustainable development as an interdisciplinary topic in education: A video study from geoscience in upper secondary school in Norway
10 Invited	Victoria Beckman, Laura Giese, Juha Rankinen , Kenneth M. Persson	Thirst for Knowledge: Think H <sub>2</sub> O!
11	Thomas B. Holm, Laura J. Cotton and Anders P. Tøttrup	Denmark Uncovers Fossils – Geological Citizen Science at the Natural History Museum of Denmark
12	Guri Venvik, Øystein Nordgulen, Tom Heldal, Matthew S. Hodge, Eline Barkås Garseth, Per Terje Osmundsen	From research to outreach – an example from the Smøla island, Mid-Norway
13	Martin A. Persson	The Multifaceted Benefits of Teaching for Consultant Geo Professionals – The Åseberget case study
14	Santiago Arellano, Zoraida Chacón, Christopher Kern and Silvana Hidalgo	Building global capacity for the observation of volcanic and atmospheric change through Situated Learning

#### Poster presentation

Thomas J. Barnes, Henning Åkesson, Erik M. Lund, Mattias Lundmark

Lisa J. Nystad, Kjersti Stangeland

Magnus Hellqvist

Thomas Reimann, Roland Barthel, Steffen Birk, Daniel Fernandez Garcia

Leticia Rodriguez-Blanco

Marie Aas, Ruth K. Brevig, Jenny B. Fossan and Markus Haugen

A. Mattias Lundmark, Anna M. Ulvestad, Elisabeth M. Engum

Rodney L. Stevens, Lennart Bornmalm, Yevhen Plotnikov and Marharyta Radomsk

Magnus Ericsson

Explorational field teaching: how students and teachers learn together in a field course in geomorphology

Facilitating student engagement in geological fieldwork using Activity Bingo

Teaching environmental geology – challenges in academical and societal viewpoints of practical application in the learning process

Interactive understanding of groundwater hydrology and hydrogeology – the iNUX project

Pictionary\* as a muti-purpose tool in teaching sequence stratigraphy

Improving Geoscience Education: How Course and Student Representatives work at University of Oslo, Norway

Reflections on a Hybrid Continuing Education Course for School Teachers: Student Perspectives and Lessons for the Future

Ukrainian knowledge exchange and scientific resilience

Ytterby – a mine under redevelopment

## 23 Geoheritage and Geoparks

Anna Bergengren, Kristin Rangnes

Name

### Oral presentation

	Name	Title
1	Anna Bergengren	Mountains as a livelihood: a project within Platåbergens UNESCO Global Geopark, West Sweden
2	Alasdair Skelton	From Porcelain to Ytterbium: On Rörstrand Castle and Ytterby Mine
3	Magnus Hellqvist, Peter Ladan and Ann-Charlotte Ladan	Geopark Indalsälven – geological heritage presented thematically through geological history, human interference and scientific history
4	Terje Solbakk, Tom Heldal, Rolv Dahl, Åse Minde and Pia Sunde	Reassembling and refurbishing the content of The Norwegian geoheritage database
5	Lennart Bornmalm, Rodney L. Stevens and Denis Vasiliev	Geopark comparisons, functional system modeling, and landscape-scale sustainability
6	Anna Bergengren	Celebrating 20 years of Global Geoparks: areas of international geological significance developing local societies

### Poster presentation

Anna Jansson, Lars O. Ericsson

Geopark Riddarhyttan – a locally-driven initiative

Jörgen Langhof, Daniel Olsson, Klara Thorell, Jan Håkanson and Jan Vennerström

Mineralriket – a new Swedish geopark!

## 24 Deglaciation: dynamics, processes and products

Carl Regnell, Wesley R. Farnsworth, Sarah L. Greenwood

### Name

#### Oral presentation

1	John R. Hopper, Lara R. Peréz, Katrine Juul Andresen, Thomas Funck, Ole Rønø Clausen, Emil Fønss Jensen, Stig Halte Graeser Kinnerup	New multibeam mapping data from Ammassalik Basin, SE Greenland: A tale of glacial landforms influenced by variable basement lithologies
2	Dan Hammarlund, Kajsa Frisendahl, Kannika Wangritthikraikul, Karl Ljung, Anne Birgitte Nielsen, Malin Kylander, Love Dalén, Anders Gótherström and Peter D. Heintzman	Holocene deglaciation and environmental history of Washington Land and Warming Land, north-western Greenland
3	Hreggviður Norðdahl, Halldór G. Pétursson and Skafti Brynjólfssso	Lateglacial to Early Holocene deglaciation of central North Iceland
4	Ívar Örn Benediktsson, Joseph M. Licciardi, Skafti Brynjólfsson, Sarah Principato, Nína Aradóttir, Esther Ruth Guðmundsdóttir, Wesley Farnsworth	Early Holocene deglaciation of eastern Iceland constrained by cosmogenic $^{36}\text{Cl}$ exposure ages and tephrochronology
5	Nína Aradóttir, Ívar Örn Benediktsson, Erla Guðný Helgadóttir, Ólafur Ingólfsson, Skafti Brynjólfsson, Wesley R. Farnsworth	Ribbed moraines formed during deglaciation of the Iceland Ice Sheet
6 Keynote	Anders Romundset, Naki Akçar, Ola Fredin, Jane L. Andersen, Fredrik Høgaas, Marcus Christl, Serdar Yesilyurt and Christian Schlüchter	Ice sheet thinning and final decay in central south Norway
7	Fredrik Høgaas, Mikis van Boeckel, Martin Klug, Oddvar Longva	A last spasm of the Scandinavian Ice Sheet: Traces of an Early Holocene glacial surge in south central Norway
8	John Inge Svendsen, Jason B. Briner, Jan. Mangerud, Henriette Linge, Richard Gyllencreutz, Svein Olav Dahl and Derek Fabel	Configuration of the Scandinavian Ice Sheet in SW Norway during the Younger Dryas
9	Alastair Goodship, Helena Alexanderson and Johanna Anjar	Reconstructing post-glacial landscape evolution around Inari, Finland using novel survey and dating instruments
10	Ólafur Ingólfsson, and Wesley R. Farnsworth	Does Late Glacial GIA aid Holocene ice cap persistence?
11	Helena Alexanderson, Astrid Lyså, Mark F. A. Furze and Anders Schomacker	Pre-LGM sea levels in northern Svalbard
12	Jakob Heyman, Cynthia V. Sassenroth and Andreas Johnsson	Circular hummocky moraines in High Asia similar to Veiki moraines / ice-walled lake plains
13	Jan Mangerud, Helena Alexanderson, Hilary H. Birks, Aage Paus, Zoran M. Perić and John Inge Svendsen	Fluctuations of the western flank of the Scandinavian Ice Sheet during Marine Isotope Stage (MIS) 3
14	Karol Tylmann, Damian Moskalewicz, Vincent Rinterknecht, Piotr P. Woźniak, ASTER Team	Dynamics of the last ice sheet along the Gardno moraines (northern Poland): reconstruction inferred from landforms analysis and $^{10}\text{Be}$ dating
15	Per Möller, Svante Björck, Thomas P.F. Dowling, Dan Hammarlund, Martin Jakobsson, Karl Ljung, Martin Lund, Savvas Paradeisis-Stathis	Deglaciation history and subsequent lake dynamics in the Siljan region, south-central Sweden - LiDAR evidence and sediment records
16	Chris D. Clark, Jeremy C. Ely, Anna, L.C. Hughes, Rosie, E. Archer, Ben M. Boyes, Frances, E. Butcher, Nico Dewald, Chris R. Diemont, Helen, E. Dulfer, Tim J. Heaton, Sarah L. Bradley	A landform-driven simulation of deglaciation of the Scandinavian Ice Sheet and the PalGlac project's progress on data-modelling integration

#### Poster presentation

Carl Regnell, Helena Alexanderson, Sarah L. Greenwood, Richard Gyllencreutz, and Christian Öhrling
Sarah L. Greenwood, Rachael S. Avery, Richard Gyllencreutz, Carl Regnell and Karol Tylmann
Anna L.C. Hughes, Jo Brendryen, Richard Gyllencreutz, Evan J. Gowan, Jan Mangerud, John Inge Svendsen
Daniel H. Wiberg, Julie H. Velle, Ingrid L. Olsen, Liv Plassen, Nicole J. Baeten, Frank W. Jakobsen, Valérie Bellec
Artūrs Putniņš, Mona Henriksen

### Title

The “Lund Moraine” – the geomorphic limit of the last ice advance in the Öresund region
Footprint of the Baltic Ice Stream: geomorphic evidence for shifting ice stream pathways
DATED-2: An updated ice-extent chronology for the Eurasian ice sheet complex, 40-10 ka
New geological maps from the continental slope and shelf north off Svalbard
A ‘virtual ice surface’ for representing the vertical down-wasting of ice in the Upper Etne valley, southcentral Norway

## 25 Glacial processes: Under ice and under pressure

Adrian Hall, Mark Johnson

### Name

#### Oral presentation

	Name	Title
1	Keynote Jan A. Piotrowski, Wojciech Wysota, Piotr Weckwerth and Piotr Hermanowski	Water at the ice-bed interface and below: processes, sediments and landforms
2	Adrian M. Hall, Mikis van Boeckel	Transient overpressure in subglacial meltwater corridors during rapid deglaciation of the Fennoscandian Ice Sheet
3	Gustaf Peterson Becher, Mark D. Johnson and Mark Peternell	Sediment exposed in murtoos at Växjö, southern Sweden, shows evidence of over-pressurized subglacial water during formation
4	Mikis van Boeckel, Adrian Hall, Christian Öhrling	Distribution of hydraulic damage from overpressure beneath the rapidly retreating margin of the last Fennoscandian ice sheet in Uppland, Sweden
5	Ívar Örn Benediktsson, Svava Kristín Jónsdóttir, Joseph M. Licciardi, Skafti Brynjólfsson, Sarah Principato, Nína Aradóttir	The Skessugarður bouldery end moraine, east Iceland: preliminary results on clast shape and moraine formation
6	Niko Putkinen and Adrian Hall	The Boulder Story: Kvarken archipelago

#### Poster presentation

Sophie ten Hietbrink, Ji-Hoon Kim, Arunima Sen, Aivo Lepland, Beata Szymczycha, Jochen Knies and Wei-Li Hong

Juulia J. Kautto, Kari K. Kajuutti, Joni K. Mäkinen, Antti A.E.K. Ojala and Elina M. Ahokangas

The Fennoscandian ice sheet as driver of groundwater aquifer flushing offshore northern Norway

Murtoos and related landforms cross-cutting ribbed moraine in Western Finland: Implications for rapidly increasing subglacial drainage.

## 26 Sedimentary ancient DNA applications to Quaternary Geology

Anna Linderholm, Ernst Jonsson, Flore Wijnands, Peter D. Heintzman, Carl Regnell

### Name

#### Oral presentation

	Name	Title
1	Keynote K.K. Sand, S. Jelavić, O.B.A. Agbaje, T. Verma, C. Carbajo, A. Prohaska and C.L. Freeman	A geochemical perspective on eDNA taphonomy: implications for ecological inference
2	Joanna Pawłowska, Ngoc-Loi Nguyen and Jan Pawłowski	Sedimentary ancient DNA for sea ice reconstructions: a case study from the Yermak Plateau (Svalbard)
3	Ernst Jonsson, Anna Linderholm	Using sedimentary ancient DNA to reveal postglacial recolonization patterns in Sweden
4	Aloïs Revéret, Lucas D. Elliott, Jo Brendryen, Marie K. Føreid Merkel, Youri Lammers, Iva Pitelkova, John-Inge Svendsen, Antony G. Brown, Jan Mangerud and Inger G. Alsos	Sedimentary ancient DNA retraces plant postglacial immigration along the Atlantic edge of the Fennoscandian Ice Sheet
5	Antony Brown, Maarten van Hardenbroek, Helen Mackay, Thierry Fonville, Peter Langdon, Nicki Whitehouse, Finbar McCormick, Emily Murray, Phil Barratt, Maxwell McCann, Andy Henderson, Francesco Ficetola, Ludovic Gielly, Kim Davies, Anne Crone, Greame Cavers, Mikkel Winther Pedersen, Javier de la Casa Sánchez, Inger Alsos, Kevin Edwards	Culture, climate or both? 6000 years of human activity from Ireland using sedaDNA, stable isotopes, lipid biomarkers and pollen
6	Magnus Lundgren	The SciLifeLab Ancient DNA unit, a national resource for sediment DNA analysis

#### Poster presentation

Jiri Barta

Joanna Pawłowska

Katarzyna Melaniuk

Joachim Regnell, Dan Hammarlund, Anna Linderholm and Carl Regnell

Microbiome of ancient soil organic matter in cryosols

The LEAD project: Atlantification of the European Arctic across geological times: new insights from sedimentary ancient DNA

Multiproxy reconstruction of the variability of the East Greenland Current during the last 150 000 years

Sedimentary ancient DNA provide new data to be added to the late-glacial fauna history of southernmost Sweden

## 27 Aeolian sediments, landforms and processes, and their paleoenvironmental record

Helena Alexanderson, Martin Lund, Thomas Stevens

	Name	Title
	<b>Oral presentation</b>	
1 Keynote	Karolina Leszczyńska	Sedimentary archives of storminess and storm induced coastal flooding – do they tell the same story?
2	Jenny K. Sjöström, Antonio Martínez Cortizas, Richard Gyllencreutz, Andreas Nylund, Frederik Schenk, Sanna R Piilo, Malin Kylander	Mid-Holocene paleostorminess in north-western Ireland inferred from grain size, mineral and molecular content
3	Thomas Stevens, Shuangwen Yi, Salome Oehler, Melanie Stammler, Daniel Höglblad and Göran Possnert	Constraining the timing of Holocene aeolian dune activity in Arctic Sweden
4 Invited	Malin E. Kylander, Antonio Martinez-Cortizas, Helena Alexanderson, Jenny K. Sjöström, Frederik Schenk, Andreas Nylund, Megan Windell and Richard Gyllencreutz	Back to the lab again: How well do proximal aeolian storm records agree?
5	Per Möller, Helena Alexanderson, Zoran Peric and Mayank Jain	Ventifacts and wind deflation surfaces in context with glaciofluvial sediment successions in southern Sweden
6	Helena Alexanderson, Per Möller, Mayank Jain, Mads F. Knudsen, Nicolaj Krog Larsen, Zoran M. Perić, Anne Sofie Søndergaard, Warren Thompson	Late glacial to Early Holocene deflation events and aeolian deposition on a raised ice-contact delta at Veinge, SW Sweden
7	E. Martin Lund, Mike J. Zawaski, Ryan C. Ewing and Ívar Ö. Benediktsson	An Icelandic aeolian system as an analogue for Mars
8	Natalia Taratunina, Amélie Challier, Redzhep Kurbanov, Andrew Murray and Jan-Pieter Buylaert	Continental dust accumulation in Central Asia: using high resolution luminescence dating to identify gross discontinuities in deposition.
9	Dominika K. Niezabitowska, Thomas Stevens, Balázs Bradák, Martin Chadima, Yunus Baykal, Daniele Sechi, and Ramona Schneider	Paleoenvironmental record of loess in southern England – decoding sediment sources and transport pathways by magnetic anisotropy
10	Yunus Baykal, Thomas Stevens, Jan-Pieter Buylaert, Vanda Jakabova, Simon Howell, Adriano Banak, Katharina Pfaff, Dimitri Vandenberghe, Johan De Grave, Ana Fonseca, Daniel Veres, Martina Hättestrand, Mark D. Johnson, Anna Hedevig, Fanny Ekström, Helena Alexanderson, Yunus Baykal, Thomas Stevens	Coupled abrupt climate-dust events driven by ice sheet dynamics: Combined source and age analysis of last glacial loess in NW Europe
11	Ramona Schneider, Christian Frigaard Rasmussen, Ellen Malmström Holmgren, Hanne Hvilstedt	Thin loess in southwest Sweden
12	Christiansen, Jan-Pieter Buylaert, Alastair Cunningham, Mads Faurschou Knudsen, Thomas Stevens	Unraveling Late Holocene Dust Dynamics and Climatic in the High Arctic: Insights from loess in Adventdalen, Svalbard

### Poster presentation

Mariia Netsyk, Thomas Stevens, Yougui Song	Triassic aeolian mudstones of Southern Britain: orbital forcing of hothouse climates
Calum J. Edward, Thomas Stevens., Anu Kaakinen, Mariia Netsyk, Ellen Malmström Holmgren	Magnetic fabric of last deglaciation-Holocene loess in southern and central Sweden
Katja Bohm, Joonas Wasiljeff, Thomas Stevens, Johanna Salminen, Hui Tang, Yann Lahaye, Matti Kurhila, Zhaoqun Zhang, Ove Haugvaldstad, Anu Kaakinen	Modern-type Central-East Asian aeolian regime and global cooling-modulated dust provenance during the late Paleogene
Ramona Schneider, Bjarne Almqvist, Daniel Hedlund, Redzhep Kurbanov, Thomas Stevens	Beyond Traditional Proxies: Exploring Multi-Frequency Magnetic Susceptibility in Loess Deposits
Thomas Stevens, Petter Hällberg, Daniele Sechi, Jan-Pieter Buylaert, Mihály Molnár, Rienk Smittenberg, Ramona Schneider, Stefano Andreucci, Vincenzo Pascucci	Combined radiocarbon and luminescence dating of Holocene Arctic loess deposits around Kangerlussuaq, Greenland
Triinu Jairus , Alar Rosentau, Hannes Tönnisson, Toru Tamura, Ilya Buynevich, Tiit Hang, Triine Nirgi, Art Kristjan Olesk, Shinya Sugita, Tiit Vaasma, Egert Vandel, Kadri Vilumaa, Ülo Suursaar	Holocene relative sealevel and storminess variations recorded at Kolga strandplain, northern Estonia

## 28 Quaternary paleoclimate from Scandinavian to Global perspective - a session in honor of Svante Björck

Raimund Muscheler, Karl Ljung, Dan Hammarlund, Malin Kylander

### Name

#### Oral presentation

	Name	Title
1	Keynote Nathalie Van der Putten, Florian Adolphi, Anette Mellström, Jesper Sjolte, Jan-Berend Stuut, Raimund Muscheler, Elisabeth Michel, Cyriel Verbruggen, Emmanuel Chapron, Jacques-Louis de Beaulieu, Svante Björck	Unravelling the Holocene history of the Southern Westerlies: a latitudinal transect of terrestrial (peat) records from the South Indian Ocean
2	Invited Zoë A. Thomas, Haidee Cadd, Chris Turney, Janet Wilmshurst, Amalia Halim, Patricia Gadd, Rebecca Parker, Chris Marjo, Stefanie Carter, Paul Brickle	Zonally symmetric shifts of the Southern Hemisphere Westerly Winds
3	Petter L. Hållberg, Guillermo J. Bueno, Yolanda Schankat, Hamdi Rifai, Frederik Schenk, Malin Kylander, Rienk Smittenberg	A multiproxy record from Sumatra indicates continuous Holocene warming but a Mid-Holocene rainfall maximum
4	Frederik Schenk, Liva Trasune, J. Sakari Salonen	"Anomalously mild Younger Dryas summer conditions" (Björck et al. 2002) as potential solution for the stadial meltwater paradox
5	Helena Alexanderson, Martin Lund and Tim Bjermo	From ice-dammed lake to aeolian dunes in the Store Mosse area, SW Sweden
6	Stefan Wastegård	Tephrochronology of the North Atlantic region – a tribute to Svante Björck
7	Carl Regnell, Sarah L. Greenwood, Richard Gyllencreuz, Johannes Hardeng, Gustaf Peterson Becher, Joachim Regnell and Christian Öhring	Radiocarbon age of the Zero-Varve of the Swedish Time Scale
8	Ole Bennike	Deglaciation chronology, ice-free Greenland
9	Gustaf Peterson Becher, Colby A. Smith, Christian Öhring, Bradley W. Goodfellow, Henrik Mikko, Gunnar Ransed, & Helena Alexandersson, Gunnar Ransed, & Helena Alexanderson	Interstadial stratigraphies in Jämtland – dating of newly discovered localities and connection to a MIS 3 ice margin
10	Mark D. Johnson and Christian Öhring	The formation of Valle Härad
11	Tolossa Dabi Dinagde and Sophie Verheyden	Reconstructing Holocene climate variability in Northwestern Europe from stalagmites of Belgium

#### Poster presentation

Maurin S.B. Rousseau, Nathalie Van der Putten, Marcel T.J. van der Meer, Clarisse Kraamwinkel, Elisabeth Michel and Svante Björck

Ludvig Löwemark, Kuan-Yi Hsu, Hong-Chun Li, Alice Chien-Yi Liao, George Burr, Chih-Chieh Su, Pei-Ling Wang, Tsai-Wen Lin, Kweku Yamoah, Stefanie Kaboth-Bahr, André Bahr  
Astrid Strunk & N. John Anderson

Raimund Muscheler

Eleonor Ryberg, Alicia Valdés, Johan Ehrén, Minna Välijanta, Malin Kylander

Sonja Silvennoinen, Johanna Salminen, Seija Kultti, Niko Putkinen

Holocene variability of the Southern Hemisphere Westerly Winds on Amsterdam Island (37°S) from peat records

How lake succession influences paleoclimate records in small, subtropical high-mountain lakes

Monitoring of Greenland lake temperatures reveals NAO influence on thermal stratification

From the Preboreal Oscillation to Solar Storms – Solar Variability as a Tool for Climate Studies

Store Mosse Bog: Species distributions of the past and factors that drive them

Development of hypoxia in the coastal northern Baltic Sea during the Holocene thermal maximum using magnetic greigite as a proxy

## 29 Quaternary geology/Geomorphology: Open Session

Gustaf Peterson Becher, Mona Henriksen

### Name

#### Oral presentation

1	Ludvig Löwemark, Björn Gunnarson, Hong-Chun Li, Akkaneewut Jirapinyakul, Sakonvan Chawchai	Tilting of Eemian sea notches on the Thai-Malay Peninsula
2	Jørgen Natvig Løvseth, Terje Solbak, Ola Fredin and Bjørn Eske Sørensen	The Norwegian tafone: A common, yet overlooked and poorly described landform
3	Benjamin Bellwald, Ben Manton, Nina Lebedeva-Ivanova, Dmitry Zastrophnov, Reidun Myklebust, Sverre Planke, Carl F. Forsberg, Maarten Vanneste, and Jacques Locat	Rapid Glacial Sedimentation and Overpressure in Oozes Causing Large Craters on the mid-Norwegian Margin
4	Christian Öhring and Colby Smith	Mörtsjö fault - 'new' Glacially-triggered fault discovered following geomorphic
5	Wesley R. Farnsworth, Nína Aradóttir, Egill Erlendsson, Esther R. Guðmundsdóttir, Guðrún Larsen, Nicolaj K. Larsen and Kurt H. Kjær	A surprisingly explosive volcanic history, Snæfellsjökull W. Iceland

#### Poster presentation

Lina Bøe , Mikis van Boeckel, Anders Romundset, Fredrik Høgaas, Martin Buran, Lilja Rún Bjarnadóttir	Mapping the Way in the Digital Day. Improving Quaternary Geological Maps in Norway
Martin Buran, Lina Bøe, Lina Gislefoss, Fredrik Høgaas, Martin Klug, Mikis van-Boeckel	Quaternary geology mapping in the Helgeland region, northern Norway – a multidisciplinary approach.
Mikis van Boeckel, Alexandra Jarna Ganerød and Inger-Lise Solberg	Mapping of red-listed marine clay gullies in Norway using Deep Learning
Thomas J. Barnes, Karianne S. Lilleøren, Thomas V. Schuler, Louise S. Schmidt	Can modelled ice conditions indicate geomorphology? Comparative pattern analysis of Norwegian Quaternary Geomorphology
Hanna Tinnerholm, Gustaf Peterson Becher, Jakob Heyman	Mapping and late Holocene reconstruction of the Helags glacier in Härjedalen, Sweden
Esther R. Guðmundsdóttir, Bergrún A. Óladóttir, Guðrún Larsen, Maarit H. Kalliokoski and Olgeir Sigmarsson	Hekla early Holocene tephrochronology: Potential new Hekla marker layers?
Maarit Kalliokoski, Esther R. Guðmundsdóttir and Bergrún A. Óladóttir	First cryptotephra study in Iceland reveals two previously unknown rhyolitic early Holocene eruptions of Hekla
Lars Ole Boldreel and Stig Asbjørn Schack Pedersen	High resolution seismic investigation of lake Esrum Sø, Denmark – glacial morphology or wrench fault tectonics?

## 30 Sedimentology - organized by the Nordic Sedimentary Research Group

Amandine Missana, Benjamin Bellwald, Aurora Garcia, Madeleine L. Vickers, Albina Gilmullina

	Name	Title
<b>Oral presentation</b>		
1 Keynote	Charlotta J. Lüthje	The Status of Geothermal Energy and Geological Storage in Denmark
2	Benjamin Bellwald, Heather Stewart, Gareth Carter, Cathinka Forsberg, Sébastien Castelltort, Scott A. Smith, Maarten Vanneste, and Carl F. Forsberg	Glacial source-to-sink systems on the formerly glaciated North Atlantic margin
3	Benedict T.I. Reinardy, Julia S. Wellner, Delaney E. Robinson and IODP 379 Scientific Party	Microstructure and sedimentation processes interpreted from muddy turbidites along the Antarctic continental rise
4	Lene Pallesen, Ola Fredin, Louise Hansen, Inger-Lise Solberg and Jean-Sébastien L'Heureux	Sedimentological context and distribution of quick clay around ice-marginal positions in Trøndelag and Finnmark, Norway
5 Invited	Maria A. Jensen, Mads Jelby, Malte Jochmann, Chris Marshall	Svalbard Warm Arctic Palaeoclimate Laboratory – sedimentology as a tool to forecast the future
6	Ingrid Anell	The Fourth Slope – Mathematical correlation of shape and process on continental margins
7	Yngve Rundberg, Sverre Planke, Benjamin Bellwald and Ragnhild Myklebust	Depositional architecture of the Neogene Skade and Utsira sands between 58° - 62° N, northern North Sea
8	Leticia Rodriguez-Blanco, Miquel Poyatos-Moré, Ingrid Anell, Ivar Midtkandal	Controls and geometries of small-scale nested clinoforms within a larger clinothem in the Sobrarbe Deltaic Complex, Ainsa Basin, Spain
9	Nicole R. Posth, Maya S. Dodhia and Karla B. Parga Martínez	Plastics in the sediment record

### **Poster presentation**

Juan Camilo Meza-Cala, Alexander Minakov, and Jan Inge Faleide

Lars Eivind Augland, Ivar Midtkandal, Henrik Svensen and Sverre Planke

Nature of acoustic basement and the sedimentary successions in the southwestern Eurasia Basin, Arctic Ocean

Detrital zircons in reworked tephra deposits – a proxy for contourites?

### **31 Ikaite and its pseudomorphs (glendonite) - a cold climate mineral indicator**

Gabrielle Stockmann, Madeleine L. Vickers

	Name	Title
<b><u>Oral presentation</u></b>		
1 Keynote	Bas van de Schootbrugge	Mineral-trapping of methane in Arctic glendonites
2	Madeleine L. Vickers; Mads E. Jelby; Carlette N. Blok; Gregory D. Price; Maria A. Jensen	The largest Early Cretaceous glendonites ever recorded
3 Invited	Erik Trampe	Unlocking Ikaite's Potential: A Novel Approach to Carbon Capture and Transformation into Premium Calcium Carbonate
4	Bo Pagh Schultz, Jennifer Huggett, Bas V.d. Schootbrugge, Clemens V. Ullmann, Nicolas Thibault, Madeleine L. Vickers	Glendonite more resolved - yet ikaite still remains an enigma
5	Bjørn Buchardt, Gabrielle Stockmann and Árný Sveinbjörnsdóttir	Isotope hydrology ( $^{2}H$ and $^{18}O$ ) of water from the arctic Ikka Fjord, SW Greenland, and its relation to ikaite formation
6	Paul G. Seaman, Erik Sturkell, Richard Gyllencreutz, Gabrielle J. Stockmann, Halld'or Geirsson	High-resolution multibeam Sonar mapping of the submarine ikaite columns and structures in Ikka Fjord, SW Greenland
7	Richard Gyllencreutz, Paul Seaman, Gabrielle J. Stockmann, Erik Sturkell, Bengt Liljebladh	Sub-bottom profile survey Ikka Fjord, South Western Greenland - has the ikaite column garden resurrected?
8	Gabrielle J. Stockmann, Mark Peterzell and Matthias Konrad-Schmolke	The transformation of ikaite into less hydrated $\text{CaCO}_3$ minerals controlled by fluids and temperature

#### **Poster presentation**

Bo Pagh Schultz, Jennifer Huggett, Bas V.d. Schootbrugge, Clemens V. Ullmann, Nicolas Thibault, Madeleine L. Vickers  
Gabrielle J. Stockmann, Mark Peterzell and Matthias Konrad-Schmolke  
Madeleine L. Vickers; Mads E. Jelby; Carlette N. Blok; Gregory D. Price; Maria A. Jensen

Glendonite more resolved - yet ikaite still remains an enigma  
The transformation of ikaite into less hydrated  $\text{CaCO}_3$  minerals controlled by fluids and temperature  
The largest Early Cretaceous glendonites ever recorded

## 32 Advances in Reconstructing Past Life, Environments and Climate from the Sedimentary Rock Record

Chris Mark, Sam Slater, Tim Topper, Steffen Kiel

### Name

#### Oral presentation

	Name	Title
1	Stephen McLoughlina and Artai A. Santosa	Plant-arthropod interactions through the Permian-Triassic transition at southern high latitudes
2	Sylvain Richoz, Isaline Demangel, Zsófia Kovács	Drastic change in weathering processes during the Upper Triassic and its link to the emergence of pelagic calcification
3	Sofie Lindström, Remco Bos, Bas van de Schootbrugge, Heiðrikur í Garði Mortensen, Hamed Sanei, Christian Tegner	Biotic responses to large igneous province volcanism during the end-Triassic crisis: Mass rarity, mutations and extinctions
4	D.Quiroz-Cabascango, V. Vajda, S. McLoughlin , G. Niedzwiedzki	PLANT MACROFOSSILS FROM THE AFTERMATH OF THE END-TRIASSIC EXTINCTION, SKÅNE, SOUTHERN SWEDEN
5	Laura J. Cotton, David Evans and Daniela N. Schmidt	Shelf ecosystem response to the Eocene-Oligocene Transition
6	Martin S.T. Dahlgren, Anthony M. Spencer and Ian J. Fairchild	Geochemical stratigraphy in the Sturtian Port Askaig Formation – testing palaeoenvironmental implications for the Snowball Earth Hypothesis
7	Keynote Micha Ruhl, Stephen P. Hesselbo, Hugh C. Jenkyns, Weimu Xu, Aisha Al-Suwaidi, Ricardo L. Silva	Deadly Kiss of the LIPs: Causes and consequences of Large Igneous Province emplacement – A case study from the Early Toarcian
8	Luke C. Strotz and Bruce S. Lieberman	Palaeocommunity persistance despite environmental disruption: Carboniferous brachiopods from the North American Mid-continent
9	Artai A. Santos, Marco Rubalcava-Knoth, Ana L. Hernández-Damián, Stephen McLoughlin, Uxue Villanueva-Amadoz, Sergio Cevallos-Ferriz	Oldest record of a seagrass ecosystem: evidence of herbivory in marine angiosperms from the mid-Cretaceous of México (N America)
10	Steffen Kiel	How seals made Nautilus a ‘Living Fossil’
11	Liping Liu, Abigail Parker, Miikka Tallavaara and Indre Zliobaite	Reconstruct fossil mammal communities by recommender systems, and its improvement on paleoenvironmental estimations

#### Poster presentation

Chris Mark, Peter Clift, Célia Paolucci, Anwar Alizai, Eduardo Garzanti

Enhanced exhumation in the East Karakoram during the mid-Pleistocene climate transition: A detrital provenance assessment

Kasia K. Śliwińska, Emma Sheldon, and Karen Dybkjær

An example of the importance of detailed biostratigraphy to resolve complex geology - the Paleocene-Oligocene succession of island of Fur, Denmark

Megan M. Windell, Timothy P. Topper, Stephen McLoughlin and Adam Kimberley

Temporal and spatial variation within a Permian polar coal-forming forest

Gustav Nessen Mattsson, Daniela C. Kalhoff, Gina Semprebon, Thomas Mörs

DIETARY ANALYSIS OF HARE-SIZED FOSSIL CLADE CAINOTHERIIDAE (MAMMALIA, ARTIODACTYLA) REVEALED FRUIT-DOMINATED DIET

Therese Flink, Cecilia M. Larsson, Jonas Hagström, Ove Johansson, Anna Lindström, Vivi Vajda and the Department of Palaeobiology

250 years of history, and 2.5 billion years of prehistory – Introducing the fossil collections of the Swedish Museum of Natural History

Cecilia M. Larsson, Therese Flink, Anna Lindström, Jonas Hagström, Ove Johansson, Vivi Vajda and the Department of Palaeobiology

Increasing the digital availability of the palaeontological collections of the Swedish Museum of Natural History

Olena Shevchuk, Vivi Vajda

Cretaceous biozonation schemes – comparison and correlation between Ukrainian and Swedish dinoflagellate assemblages

Sam M. Slater, Paul R. Bown, Vivi Vajda, Richard J. Twitchett, Silvia Danise and Phillip E. Jardine

Nannofossil imprints through past global warming events

### 33 New tools in geoscience (remote sensing, digital outcrops): Open Session

Name

**Poster presentation**

Kristian Drivenes, Marco Brönner, Jochen Knies

Title

Porosity and Permeability Estimations By Fluorescence Microscopy: Examples From Weathered Basement Rocks On- and Offshore Norway

## 34 From the Caledonides to the Scandes

Jenny Andersson, Iwona Klonowska

### Name

#### Oral presentation

	Name	Title
1	Keynote	Christopher J. Barnes, Michał Bukała, Katarzyna Walczak, Grzegorz Ziemniak, Iwona Klonowska, Jarosław Majka
2		Gurli B. Meyer, Data Gasser, Anna Ksienzyk and Tor Grenne
3		Isabel S. M. Carter, Simon Cuthbert and Katarzyna Walczak
4	Invited	Simon J Cuthbert and Adam Włodek
5		Charlotte Möller, Yue Cai, Hannes K. Brueckner, Kristoffer Szilas and Martin J. Whitehouse
6	Invited	Fernando Corfu
7		Iwona Klonowska, Christopher Barnes, Suzanne Baldwin and Paul Fitzgerald
8		Øystein Nordgulen & Guri Venvik
9		Peter Japsen, Paul F. Green, Johan M. Bonow and James A. Chalmers
10		James A Chalmers, Johan M. Bonow and Peter Japsen

#### Poster presentation

Ane K. Engvik, Johannes Jakob

Daniel Buczko, Jarosław Majka, Magdalena Matusiak-Małek, Iwona Klonowska

Riccardo Callegari, Abigail K. Barker, Christopher J. Barnes, Iwona Klonowska, Karolina Kośmińska, Jarosław Majka

Kine T. Størdal, Trond Slagstad, Bjørn E. Sørensen and Maarten Felix

Thomas Scheiber, Morgan Ganerød, Roelant van der Lelij, Jasmin Schönenberger and Giulio Viola

Decompression evolution of sillimanite gneiss in the high-pressure terrane of Western Gneiss Region (Norway)

Significance of orogenic peridotites in understanding the evolution of Baltican margin throughout the Caledonian Wilson cycle

Geochronology and geochemical characterization of continental rifting in the Kebnekaise region, northern Scandinavian Caledonides

Provenance of the Neoproterozoic–Cambrian Vestertana Group in Finnmark, northern Norway

Constraining the late- and post-Caledonian structural evolution onshore Ofotfjorden-Vestfjorden

## 35 Planetary Geoscience

Andreas Johnsson, Susan Conway, Sanna Alwmark, Marve Yesilbas, Axel Hagermann

### Name

#### Oral presentation

	Name	Title
1 Keynote	Svein-Erik Hamran, David A Paige, Uni Årting, Tor Berger, Titus Casademont, Patrick Russell, Michael Mellon, Lynn Carter, Daniel Nunes, Henning Dypvik, Emileigh Shoemaker, and Dirk Plettemeier	RIMFAX Ground Penetrating Radar Observations of Subsurface Structures in Jezero Crater, Mars.
2 Invited	Solmaz Adeli, Stephen P. Garland, Nils Mueller, Suzanne E. Smrekar, Daniel C. Nunes, Akin Domac, Giulia Alemanno, Christopher W. Hamilton, Gro B.M. Pedersen, Christian Althaus, Ernst Hauber, Frank Trauthan, Shreya Ch. Chauhan, Rana Demirok, Alessandro Maturilli, Dennis Wendler, M. Darby Dyar, Jörn Helbert	In situ NIR imaging of different types of lava flow in Iceland as an analog to Venus – in the spectral range of VEM/VERITAS
3	Evan Blanc, Susan J. Conway, Frances E. G. Butcher, Axel Noblet, Anna Grau Galofre	Layered outcrops on Mars give insights into the planet's glacial history
4	Trung Nguyen, Michael Holmboe and Merve Yesilbas	Water Retention Mechanisms on the Near Surfaces of Mars: Gravimetric and Cryogenic Vibrational Spectroscopy Approaches
5	Adam. D. Johantges, Harald Hiesinger, Nico Schmedemann, Ernst Hauber, Andreas Johnsson	RADAR INVESTIGATION OF THE SUBSURFACE OF SORTED STONE CIRCLES ON SVALBARD, NORWAY – AN ANALOG STUDY FOR MARS
6	Gabriel Zachén, Carl Alwmark, Sanna Alwmark and Ludovic Ferrière	Scarce Shock Metamorphic Indicators in Mesosiderites and Implications for Timing of Deep Burial
7	Merve Yesilbas, Tuan H. Vu, Robert Hodys, Mathieu Choukroun, Paul V. Johnson and Janice L. Bishop	Spectroscopic Investigations of Gypsum-Salt Interactions Across Mars Relevant Temperatures: Implications for Modern Mars Geochemistry
8	Lucas Demaret, András Gorzsás, Cisem Altunayar-Unsalan, Ozan Unsalan and Merve Yesilbas	Cryogenic Raman Signatures of Hydromagnesite-rich Samples from Lake Salda: Understanding the Modern Geochemistry and Life Potential of Mars

#### Poster presentation

Laura Kotomaa

Formation and origin of meteorites - A case study of the "Lieksa 4" iron meteorite and Haverö ureilite

Katarzyna Gajewska, Sanna Alwmark, Gabriel Zachén, Carl Alwmark

Insights into formation of impactites in small impact structures – shocked quartz from the Tvären impact structure, Sweden

Trine Sjöberg, Susan J. Conway and Andreas Johnsson

Slope failures and surface degradation along the Nilosyrtis Rupes, Mars: Putative slab avalanches and sublimated terrain

Aili Vesmes, Cynthia Sassenroth and Andreas Johnsson

Potential glacial landforms in Nilosyrtis Mensae, Mars: A qualitative geomorphological mapping and interpretation of an impact crater

Emelie Saar, Cynthia V. Sassenroth and Andreas Johnsson

Evolution of fluvial, and possible lacustrine or marine activity in Nilosyrtis, Mars: A Geomorphological and Geochemical Analysis.

Andreas Johnsson, Ernst Hauber, Harald Hiesinger, Nico Schmedemann, Adam Johantges, Cynthia Sassenroth, Tilman Bucher, Matthias Gessner, Marine Desjardins, Fabian Ellermann, Siri Holm Hjelmerud, Sofia Persson, Oscar Amin, Wilma Rydell

Svalbard Permafrost Landforms as Analogues for Mars (SPLAM): An overview of scientific outcomes and new lines of research.

## 36 Scientific drilling in a Nordic perspective: Achievements and plans

Sverre Planke, Kim Senger, Henning Lorenz, Lara Perez, Alan Bischoff, Anett Blischke, Óluva Eidesgaard

	Name	Title
1	<u>keynote</u> Øystein Nordgulen	The International Continental Scientific Drilling Program (ICDP) – status and prospects for Nordic drilling projects
2	invited Aino Karjalainen, Jussi Rytönen, Juha Solantie, Ilmo Kukkonen and Pekka Heikkinen	Developing EGS in crystalline rock: lessons learned from two 6 km deep holes in Otniemi, southern Finland
3	Jon Engström, Perttu Mikkola, Alan Bischoff, Michal Malinowski, Tuomo Karinen, Jonna Tirroniemi, Uula Autio	Koillismaa Deep Hole: a window into the Archean-Proterozoic Fennoscandian Shield
4	Christopher Juhlin, Bjarne Almqvist, Mark Anderson, Mark Dopson, David Gee, Iwona Klonowska, Oliver Lehner, Henning Lorenz, Christophe Pascal, Sandra Piazolo, Nick Roberts, Jan-Erik Rosberg and Chin-Fu Tsang	Collisional Orogeny in the Scandinavian Caledonides (COSC): From start to finish
5	Ilmo T. Kukkonen, Grzegorz Kwiatek, Peter E. Malin, Malin Bomberg, Pekka Heikkilä, Georg Dresen, Joerg Renner, Riikka Kietäväinen, Daniel Schindler, Jussi Rytönen, Aino Karjalainen, Jussi Leveinen, Teppo Arola, Jiri Muller and the DEEP-EGS team	New ICDP project proposal: Post-drilling assessment and experiments in the St1 Deep Heat Reservoir, Finland (DEEP EGS)
6	Henning Lorenz, Cindy Kunkel and Katja Heeschen	Research Data Management in Scientific Drilling: from the acquisition of consistent data at the drill site to FAIR data dissemination
7	Jana Ólavs dóttir, Óluva R. Eidesgaard, Uni K. Petersen and Barbara B. Hansen	Drilling a low temperature convective system, Glyvrar, Faroe Islands
8	Henrik H. Svensen, Sara Callegaro, Hans Jørgen Kjøll, Ivar Midtkandal, Jack Whattam, Bjørgunn H. Dalslåen, Terje Rogvi Kirkeby, Else-Ragnhild Neumann, John Millett, and Sverre Planke	Rhomb porphyry lavas from the Oslo Rift revisited: New insights from construction-related boreholes and cores
9	Kim Senger, Kasia K. Sliwinska, Denise Kulhanek, Morgan T. Jones, Aleksandra Smyrak-Sikora, Sverre Planke, Valentin Zuchuat, William J. Foster, Sten-Andreas Grundvåg, Henning Lorenz, Micha Ruhl, Madeleine L. Vickers and Weimu Xu	Deep-time climate archives in Svalbard: opportunities for scientific drilling
10	invited Paul C. Knutz, Anne Jennings, Laurel B. Childress & Expedition 400 Science Party	A unique late Cenozoic archive of Greenland climate evolution recovered by IODP Exp 400
11	Flemming G. Christiansen, David Whitehead, Jørgen A. Bojesen-Koefoed, John Boserup and Ole Christiansen	Drilling history of Greenland
12	Christian Tegner, Pengyuan Guo, Sayantani Chatterjee, Sarah Lambart, John M. Millett, Christian Berndt, Carlos A. Alvarez Zarikian, Sverre Planke, and IODP Expedition 396 scientists	Petrology of magmatic rocks drilled on the Mid-Norwegian margin
13	Mohamed Mansour Abdelmalak, Sverre Planke, Juan Pablo Lovecchio, Denise Kulhanek, IODP PROPSAL 1000 proponents (Pedro R. Kress, Stuart Robinson, Juan Pablo Pérez Panera, Dougal A. Jerram, Alejandro Tassone, Gonzalo Flores, Sebastian Principi, Christian Berndt, Sietske Batenburg, Sébastien Rohais, David Naafs, Graziela Bozzano, Malcolm Hole, Anthony A. P. Koppers, Néstor D. Bolatti, Augusto Rapalini).	Exploring the transition from continental breakup to a passive margin during the opening of the South Atlantic
14	Sverre Planke, Christian Berndt, Stefan Buenz, Ritske Huismans, Jan Inge Faleide, Henrik H. Svensen, Morgan T. Jones, Christian Tegner, Anett Blischke, Nina Lebedeva-Ivanova, and John M. Millett	Understanding Volcanic Rifted Margins and Paleoenvironment by Scientific Drilling in the NE Atlantic
15	Morgan T. Jones, Ella W. Stokke, Madeleine L. Vickers, Joost Frieling, Jack Longman, Weimu Xu, Mei Nelissen, Henk Brinkhuis, Reed Scherer, Sverre Planke, Christian Berndt, Carlos A. Alvarez Zarikian, and the IODP Expedition 396 Scientists.	The chemostratigraphy of the Paleocene–Eocene infill of the Modgunn hydrothermal vent complex on the Norwegian continental margin
16	Dmitry Zastrophnov, Sverre Planke, Nina Lebedeva-Ivanova, John M. Millett, Stefan Bünz, Cornelia M. Binde, Ben Manton, Christian Berndt, Peter Betlem, David W. Jolley, Kasia Sliwinska and Henk Brinkhuis	The Tectonomagmatic Development of the Vøring Marginal High, Norwegian Sea: Core-log-seismic Integration of the IODP Expedition 396 Boreholes U1571 and 1572
17	John M. Millett, Sverre Planke, Christian Berndt, David Jolley, Ben Manton, Dmitrii Zastrophnov, Nina Lebedeva-Ivanova, Carlos Alvarez Zarikian, Laurent Gernigon, Stefan Bunz, Reidun Myklebust, and IODP X396 Scientists.	Inter-lava sedimentation and siliciclastic reservoir potential, mid-Norway: IODP site U1566

### Poster presentation

Madeleine S. Nygaard, Sverre Planke, Christian Berndt, Dmitry Zastrophnov, Jan Inge Faleide, Morgan T. Jones, Stefan Buenz, Nina Lebedeva-Ivanova, Ritske Huismans, John M. Millett, and Henk Brinkhuis David G. Whitehead	Characterization of the Vøring Transform Margin by IODP Exp. 396 Drilling and High-Resolution 3D Seismic on the Mimir High History of Drilling on Greenland
Morgan T. Jones, Sverre Planke, Christian Tegner, Joost Frieling, Sofie Lindström, Ole Rønø Clausen, Lars E. Augland a, Tamsin Mather, Emma Nicholson, Daniela Schmidt, Philip A.E. Pogge von Strandmann, Henrik H. Svensen and John Millett Irène Elodie Nlep, François Mvondo Owono, Mohamed Mansour Abdelmalak, Sverre Planke	Volcanic Forcing and Paleogene Climate Change (PVOLC): An international continental drilling program (ICDP) project in Denmark
Renata G. Lucchi, Stefan Bünz, Andreia Plaza-Faverola, Sunil Vadakkepuliyambatta, Jochen Kries, Michele Rebesco, Kristen St. John and the co-proponents of IODP 985Full2 Valentin Zuchuat, Sleveland, A.R.N., v. Soelen, E.E., Twitchett, R.J., Svensen, H.H., Turner, H., Augland, L.E., Jones, M.T., Hammer, Ø., Haflidason, H., Midtkandal, I., Planke, S. and the Deltadalen project team	Characterization of the Cameroon volcanic line: insight from 2D and 3D seismic reflection data in the Douala and Rio Muni basins The high-resolution paleoclimatic record of the western margin of Svalbard (Proposal IODP 985-Full2, IODP Expedition 403)
Marko Plavetić, Jonas Donnenfield, Constance Choquel, Sha Ni, Behnaz Pirzamanbein and Helena L. Filipsson Hans Christian Larsen, Anett Blischke, Sverre Planke, Sæmundur Ari Halldórsson, Bryndís Bráðsdóttir, Charles E. Lesher, Clinton P. Conrad, Eric L. Brown, Carmen Gaina, et al	Drilling the Permian-Triassic boundary in Svalbard: from the design of the project to scientific outcome, what to keep and what to change? From the Deep Ocean to Deep Data: Leveraging Advanced µCT and AI Techniques in Foraminifera Morphological Data Processing IODP Proposal 976: Understanding the temporal evolution of asymmetric plume-ridge interactions in the Northeast Atlantic

## 37 Geology, landscape, and the human past - Recent approaches to geoarchaeology

Mark Peternell, Christian Horn

	Name	Title
<b><u>Oral presentation</u></b>		
1 keynote	Cees W. Passchier	Aspects of geoarchaeology
2	Jonatan Rigvald	Digitally Reconstructing an Iron Production Landscape: The Spatiality and Chronology of Iron Production Sites within Northern Sweden
3	Andy R. Bobyarchick	Complex Crack Formation in Metavolcanic Rocks Accommodating Tool Making
4	Julián Moyano Di Carlo, Christian Horn, Johan Ling, Carina Liebl, Mark Peternell, Ashley Green, Richard Potter, and Cecilia Lindhé	Modeling the social process behind the selection of rocks and the positioning of rock art figures in Aspeberget during the Bronze Age
5	Carina Liebl, Mark Peternell, Christian Horn, Johan Ling, Julian Moyano Di Carlo, Ashley Green, Henrik Zedig, Ellen Meijer and Cecilia Lindhé	Application of ultrasonic soundwave velocity for investigation and documentation of Bronze Age rock art in Tanum, Sweden
6	Christian Horn, Mark Peternell, Rich Potter	Paint it red – Investigating the impact of painting rock art in Sweden through thermal imaging
7	Lars Ole Boldreel, Ole Grøn, Bo Madsen, Ole Bennike, Rostand Tayong Boumda and Egon Nørmark	Stoneage site detected by high resolution seismic method
8	Magnus Hellqvist	Inventory and investigation of peatlands to reveal possible human settlements in south central Sweden
9	Riia M. Chmielowski	Micro-scale clues to transport-scale questions: How LA-ICP-MS trace-element composition maps can reveal steatite's hidden secrets
10	Lars O. Ericsson, Fredrik Mossmark , Viktor Bergion and Jennie Sjöholm	Genesis of limonite ores in the "Röda Jorden" area from a hydro-geological perspective
11	Johannes Edvardsson, Kjeld Christensen, Jonas Ogdal Jensen, Hans Linderson, Maria Karamihalaki, Dan Hammarlund, Christian Horn, Peter Skoglund	Subfossil trees as proxies for long-term climate dynamics and ecosystem changes

### **Poster presentation**

Helena Alexanderson, Ellen Hoffstein, Iris Hoffstein, Zoran M. Perić and Nils-Arvid Andersson

Buried by sand – the abandoned medieval town at Falsterbo, S Sweden