



Hosted by the Geological Society of Sweden

# 31st Nordic Geological Winter Meeting

Lund, Sweden, January 8–10 2014

***Program overview***  
***Scientific program***  
***Posters***

# Program Overview

7 January							
18:00-21:00	#	Registration (AF Borgen foajén)		NB: Zetterwallska rum available as speaker-ready room throughout conference			
8 January							
07:30		Registration (AF Borgen foajén)					
		STORA SALEN	LILLA SALEN	NYA FEST	ÖVRE PALESTRA	NEDRE PALESTRA	SÅNGSALEN
08:20-08:45		Opening ceremony					
08:45-10:00	5	MOR-GLA1 Geomorphology and Glacial Geology I	GEOP1 Impact structures I	HYD-ENV1 Hydrogeology I	PET1 Modeling of P-T-fluid conditions in metamorphic studies	STR-TEC1 Open Session: Structural Geology and Tectonics	
10:00-10:30		Coffee					
10:00		Posters up					
10:30-12:00	6	MOR-GLA1 Geomorphology and Glacial Geology II (3 talks) MOR-GLA3 Using LiDAR in Geo- morphology I (3 talks)	GEOP1 Impact structures II	HYD-ENV1 Hydrogeology II	PET2 Open session: Geochemistry, mineralogy, geochronology I	STR-TEC2 Trans-Baltic Precambrian Correlations: Regional and Global Tectonic Recon- structions I	
12:00-13:00		Lunch					
13:00-13:45		Plenary session OLAFUR					
13:45-14:30	3	MOR-GLA4 Dynamics of Modern Glaciers I	LUND I Lundadagarna I: Paleontology, sedimentology and stratigraphy	ENG-GEO Engineering Geology I	PET2 Open session: Geochemistry, mineralogy, geochronology II	STR-TEC2 Trans-Baltic Precambrian Correlations: Regional and Global Tectonic Recon- structions II	
14:30-15:00		Coffee					
15:00-16:00	4-6	MOR-GLA4 Dynamics of Modern Glaciers II	LUND II Lundadagarna I: Paleontology, sedimentology and stratigraphy	ENG-GEO Engineering Geology II	PET3 100 years of modern metamorphic petrology: Celebrating the centennial of Eskolas Orjjarvi Bulletin	GEOP2 Volcanology	
16:00-18:00		Poster session (Café Aten, AF Borgen)		Boreas board meeting 16–18			
18:00-20:00		Ice breaker, Universitetshuset					
9 January							
08:30-10:00	6	MOR-GLA 5 Glacial History of Scandinavia I	LUND III Lundadagarna I: Paleontology, sedimentology and stratigraphy	ECON-OIL2 Metallogeny of Greenland and Fennoscandia I	PET4 The zircon messenger: nature and experiment	HYD-ENV2 Geohazards in the Nordic and Arctic regions	
10:00-10:30		Coffee					
10:30-12:00	6	MOR-GLA 5 Glacial History of Scandinavia II	LUND IV Lundadagarna I: Paleontology, sedimentology and stratigraphy	ECON-OIL2 Metallogeny of Greenland and Fennoscandia II	PET5 Petrology (Igneous, meta- morphic, sedimentary)	MOR-GLA2 Scandinavian bedrock landscapes: tectonic and glacial implications	
12:00-13:00		Lunch					
13:00-13:45		Plenary session RING					
13:45-14:30	3	QUAT2 Land-Sea Interactions in a long time perspective I	LUND V Lundadagarna II: Weathering horizons	MOR-GLA 5 Glacial History of Scandinavia III	PET6 The geology of north Atlantic and high-arctic large igneous provinces	STR-TEC4 Evolution of the Continen- tal Crust: growth vs. reworking I	
14:30-15:00		Coffee					
15:00-16:30	6-8	QUAT2 Land-Sea Interactions in a long time perspective II	LUND VI Lundadagarna II: Weathering horizons	MOR-GLA 5 Glacial History of Scandinavia IV	PET7 Chronology and Rates of Metamorphism and Deformation	STR-TEC4 Evolution of the Continental Crust: growth vs. reworking II	
			Nordic Society for Clay Research 16:30	NORDQUA meeting 16:45		Nordic Volcanological Center 40th Anniversary celebration, 17:00-19:00	
19:00-22:00		Conference dinner					
10 January							
08:30-10:00	6	QUAT1 Quaternary Geology I	LUND VII Lundadagarna II: Weathering horizons	ECON-OIL3 Petroleum Geology an Industrial Minerals	PET8 Progress of laser ablation ICP-MS in Earth Sciences I	STR-TEC3 Orogens and orogen dynamics I	OUT-ED Outreach and educa- tion: Reaching out with WOW to the Many! I
10:00-10:30		Coffee					
10:30-11:15	3	QUAT1 Quaternary Geology II	GEOBIO Geobiology I	ECON-OIL3 Petroleum Geology an Industrial Minerals	PET8 Progress of laser ablation ICP-MS in Earth Sciences II	STR-TEC3 Orogens and orogen dynamics II	OUT-ED Outreach and educa- tion: Reaching out with WOW to the Many! II
11:15-12:00		Plenary session SCHWEITZER					
2:00-13:00		Lunch					
13:00-13:45		Plenary session NORDIC GEOSCIENTIST					
13:45-14:30	3	QUAT1 Quaternary Geology III	GEOBIO Geobiology II	ECON-OIL1 Ore Formation and Exploration I	PET8 Progress of laser ablation ICP-MS in Earth Sciences III AND ROUND TABLE	STR-TEC3 Orogens and orogen dynamics III	From 14:00 on, PETROLOGY ROUND TABLE
14:30-15:00		Coffee					
15:00-16:30	6	MOR-GLA3 Using LiDAR in Geomorphology II	GEOBIO Geobiology III	ECON-OIL1 Ore Formation and Exploration II	HYD-ENV3 Environmental Geology	STR-TEC3 Orogens and orogen dynamics IV	PETROLOGY ROUND TABLE
16:30		Closing ceremony					

# Scientific Program

## Wednesday January 8th, AM

8:20 Opening Ceremony

### MOR-GLA1 Geomorphology and Glacial Geology I

Conveners: Kariane Lilleøren and Emrys Phillips

Rum: Stora Salen

8:45 Detailed slope geomorphology in central Svalbard - a comparative study relating slope landforms and processes to meteorology, geology and topography  
Rubensdotter, Lena; Christiansen, Hanne, H

9:00 Alluvial fans on Svalbard and implications for past Mars climate  
de Haas, Tjalling; Carbonneau, Patrice; Hauber, Ernst; Kleinhans, Maarten G.

9:15 Cold region geomorphology, permafrost evolution and landscape development in the north – the concept of cryo-conditioning  
Etzelmüller, Bernd; Lilleøren, Kariane S.; Berthling, Ivar

9:30 Morphologic evidence for a sackung event in Tröllaskagi mountain (Northern Iceland)  
Coquin, Julien; Mercier, Denis; Bourgeois, Olivier; Cossart, Etienne

9:45 "The Poly Morphological Landform Approach" a new tool for hydrogeological applications in heterogeneous glacial deposits.  
Klint, Knud Erik S.; Nilsson, Bertel; Trolldberg, Lars; Jakobsen, Peter Roll

### MOR-GLA1 Geomorphology and Glacial Geology II

Conveners: Kariane Lilleøren and Emrys Phillips

Rum: Stora Salen

10:30 A soft-bed system under the Scandinavian Ice Sheet: Mosaic of stable and deforming spots  
Piotrowski, Jan A.; Tylmann, Karol; Narloch, Włodzimierz; Wysota, Wojciech; Damsgaard, Anders; Egholm, David L.; Larsen, Nicolaj K.; Lesemann, Jerome

10:45 Micromorphological evidence of liquefaction, injection and sediment deposition during basal sliding  
Phillips, Emrys; Likpa, Ewelina; van der Meer, Jaap

11:00 Geomorphological indications of palaeo-subglacial lakes in Fennoscandia  
Lilleøren Kariane S; Sørbel, Leif; Etzelmüller, Bernd; Hagen, Jon Ove

### MOR-GLA3 Using LiDAR in Geomorphology I

Conveners: Clas Hättestrand and Mark Johnson

Rum: Stora Salen

11:15 Implementing airborne LiDAR data in mapping of Quaternary geology and surficial deposits in Norway  
Høgaas, Fredrik; Fredin, Ola; Romundset, Anders

11:30 LiDAR DEM use in Quaternary deposits mapping  
Palmu, Jukka-Pekka; Ojala, Antti E.K.

11:45 Applications of airborne LiDAR at the Geological survey of Sweden  
Peterson, Gustaf; Mikko, Henrik; Ising, Jonas; Smith, Colby A.

## Wednesday January 8th, AM

8:30 Opening Ceremony

### GEOP1 Impact structures I

Conveners: Carl Alwmark, Sanna Holm and Jens Ormö

Rum: Lilla Salen

**8:45** Definitive criteria for meteorite impact —  
*Keynote* What to look for?  
Ferrière, Ludovic

9:15 The Lockne-Målingen doublet impact structure: A marine impact by a binary asteroid  
Ormö, J; Sturkell, E; Alwmark, C; Nölvak, J., Melero-Asensio, I, Lepinette, A., Frisk, Å, Holm, S., and Wikström, T.

9:30 Planar deformation features in quartz grains from the Målingen structure – Evidence of an impact  
Alwmark, Carl; Holm, Sanna; Ormö, Jens; Sturkell, Erik

9:45 Shock-induced deformations in feldspar grains from Siljan impactites (Sweden)  
Holm, Sanna; Ferrière, Ludovic

### GEOP1 Impact structures II

Conveners: Carl Alwmark, Sanna Holm and Jens Ormö

Rum: Lilla Salen

10:30 The Vakkejokk Breccia, an Early Cambrian proximal impact ejecta layer in the north-Swedish Caledonides. But where is the crater?  
Nielsen, Arne Thorshøj; Ormö, Jens; Alwmark, Carl

10:45 Mesoscale hypervelocity cratering experiments in sandstone, quartzite, and tuff – the MEMIN project

	Deutsch, Alex; Kenkmann, Thomas; Poelchau, Michael; Thoma, Klaus	10:30	<b>Groundwater index – a Norwegian approach to cope with limited data</b> Haugen, L.E.; Dagestad, A.; Kværner, J.; Gunnarsdottir, H.; Pedersen, T.; Frengstad, B.
11:00	<b>Chicxulub ejecta deposits – an analogue to Fluidized Ejecta Blankets on Mars</b> Ocampo, Adriana; Vajda, Vivi	10:45	<b>The role of springs during history in Sweden</b> Gert Knutsson
11:15	<b>Mechanical mixing of impact-generated feldspar liquids in the Maniitsoq structure, West Greenland</b> Garde, Adam A.; Keulen, Nynke	11:00	<b>Sources of CO<sub>2</sub> in Mineral Water of Bad Driburg and other Locations</b> Ali, Syed Anas
11:30	<b>Whole rock geochemistry and zircon geochronology of the central Finnefjeld tonalite gneiss from the Maniitsoq impact structure, Western Greenland</b> Esbensen, Kim H.; McDonald, Iain; Johansson, Leif	11:15	<b>Waters around and underground - a challenge to Hannukainen mining development site, Finland</b> Korkka-Niemi, Kirsti; Salonen, Veli-Pekka; Nurminen, Tiina; Rautio Anne
11:45	<b>Continental boninitic norite intrusions as meteorite impact modified mantle indicators</b> Klausen, Martin B.; Garde, Adam A.; Riisager, Peter; Söderlund, Ulf	11:30	<b>Rautuvaara: A conceptual model approach to environmental management within the Hannukainen mining project, Finland.</b> Howett, Peter; Korkka-Niemi, Kirsti; & Salonen, Veli-Pekka
		11:45	<b>An integrated simulations system to study the impact of global change on human-environment systems in the field of groundwater and water supply</b> Barthel, Roland; Reichenau, Tim G.; Muerth, Markus; Heinzeller, Christoph; Schneider, Karl; Hennicker, Rolf; Mauser, Wolfram; Krimly, Tatjana; Elbers, Michael; Soboll, Anja; Wackerbauer, Johann; Janisch, Stephan; Dabbert, Stephan; Schmude, Jurgen; Ernst, Andreas

### Wednesday January 8th, AM

8:20 Opening Ceremony

#### HYD-ENV1 Hydrogeology I

Convener: Roland Barthel  
Rum: Nya Fest

8:45 **Patterns of pesticide pollution in Scania groundwater reservoirs**  
Åkesson, Maria; Sparrenbom, Charlotte

9:00 **Arsenic concentrations in water in aggregate production areas in Tampere-Häme region, Finland**  
Backman, Birgitta, Hatakka, Tarja; Pullinen, Arto; Tarvainen, Timo; Härmä Paavo

9:15 **The Effect of Morphologically Undetectable Kettle Holes (MUKHs) on the Groundwater Flow and Water Geochemistry at Virtaankangas, SW Finland**  
Ahokangas, Elina, Korkka-Niemi, Kirsti, Mäkinen, Joni & Artimo, Aki

9:30 **<sup>3</sup>H/<sup>3</sup>He dating of groundwater for calibration of flow models**  
Sundal, Anja; Aagaard, Per; Wejden, Bente; Brennwald, Matthias S.

9:45 **Quantifying groundwater recharge contribution through natural and artificial recharge areas by groundwater modeling**  
Hashemi, Hossein

#### HYD-ENV1 Hydrogeology II

Convener: Roland Barthel  
Rum: Nya Fest

### Wednesday January 8th, AM

8:20 Opening Ceremony

#### PET1 Modeling of P-T-fluid conditions in metamorphic studies

Conveners: Alasdair Skelton and Charlotte Möller  
Rum: Övre Palestra

8:45 **A comparison of the P/T conditions between two metamorphic complexes in Tasmania, Australia**  
Chmielowski, Riia M.

9:00 **Preservation of blueschist facies minerals along a shear zone by fast flowing high XCO<sub>2</sub> fluids**  
Kleine, Barbara; Skelton, Alasdair; Huet, Benjamin; Pitcairn, Iain

9:15 **Vein controlled stabilisation of Barrovian index minerals: observations from Glen Esk**  
Lewerentz, Alexander; Skelton, Alasdair; Möller, Charlotte; Crill, Patrick

9:30 **Characterization of Na-metasomatism in the Sveconorwegian Bamble Sector of South Norway**  
Engvik, Ane K.; Ihlen, Peter; Austrheim, Håkon

9:45 **Fluid controlled infiltration driven retrogression of dry granulite protoliths in the Bamble sector, South Norway - fluid inclusion studies and phase diagram modelling**  
Sørensen, Bjørn Eske; Larsen, Rune

#### PET2 Open session: Geochemistry, mineralogy, geochronology I

Conveners: Nynke Keulen & Tod Waight  
Rum: Övre Palestra

10:30 **Formation of parting in quartz**  
Kjøll, Hans Jørgen; Sørensen, Bjørn Eske

10:45 **Arctic Ocean Mn-stratigraphy: genesis, synthesis and inter-basin correlation**  
Gyllencreutz, Richard; Löwemark, Ludvig; März, Christian; O'Regan, Matt

11:00 **Source and character of hydrothermal calcite veins adjacent to extension-related dolerite dykes on the Baltic Shield**  
Maskenskaya, Olga; Drake, Henrik; Åström, Mats

11:15 **Geochemistry of Palaeoproterozoic greenstone dykes, Dannemora, eastern Bergslagen region, east-central Sweden**  
Johansson, Åke; Dahlin, Peter; Andersson, Ulf Bertil

11:30 **Determination of the origin of corundum (ruby and sapphire) from Tanzania by geochemical fingerprinting**  
Keulen, Nynke; Kalvig, Per; Thomsen, Tonny B.; Kokfelt, Thomas F.; Vennemann, Torsten

11:45 **Evaluating handheld XRF (hXRF) – Is there a wider application horizon?**  
Esbensen, Kim H.; Holding, Martin C.; McDonald, Iain; Johansson, Leif

### Wednesday January 8th, AM

8:20 Opening Ceremony

#### STR-TEC1 Open Session: Structural Geology and Tectonics Coners

Convener: Hemin Koyi  
Rum: Nedre Palestre

8:45 **The ductile deformation history of Olkiluoto, the site for the high-level nuclear waste repository, SW Finland**  
Engström, Jon; Paulamäki, Seppo; Kärki, Aulis; Aaltonen Ismo

9:00 **Basin inversion in the Sorgenfrei-Tornquist Zone was governed by local compression during regional extension**  
Graversen, Ole

9:15 **Shear zones between rock units with no relative movement**  
Koyi, Hemin; Schmeling, Harro; Burchardt, Steffi; Talbot, Christopher; Mukherjee, Soumajit; Sjöström, Håkan; Chemia, Zurab

9:30 **ICDP drilling in the Scandinavian Caledonides: The SSDP-COSC project**  
Juhlin, Christopher; Lorenz, Henning; Gee, David; Pascal, Christophe; Tsang, Chin-Fu; Pedersen, Karsten; Parrish, Randy; Rosberg, Jan-Erik

9:45 **Late Cretaceous structural inversion in the Sorgenfrei-Tornquist Zone was not linked with Alpine foreland compression**  
Graversen, Ole

#### STR-TEC2 Trans-Baltic Precambrian Correlations: Regional and Global Tectonic Reconstructions I

Conveners: Svetlana Bogdanova & Grazina Skridlaite  
Rum: Nedre Palestre

**10:30 Keynote** **Trans-Baltic Precambrian correlations: highlights**  
Bogdanova, Svetlana V.

11:00 **Late Paleoproterozoic paleogeography of the East European Craton by paleomagnetic data**  
Lubnina, Natalia; Bogdanova, Svetlana; Gintov, Oleg

11:15 **Evolution of the East European craton inferred from ages and Hf isotope composition of detrital zircons**  
Shumlyansky, Leonid

11:30 **The Ingul Block of the Ukrainian Shield as a key to the Paleoproterozoic reconstruction of Sarmatia, East European Craton**  
Gintov, Oleg; Mychak, Sergii

11:45 **TransBaltic Proterozoic correlation: recurrent metamorphism and magmatism in Lithuania and adjacent areas**  
Skridlaite, Grazina; Bogdanova, Svetlana; Taran, Ludmila; Baginski, Boguslaw; Wiszniewska, Janina

### Wednesday January 8th

13:00 **Plenary Session INGÓLFSSON & BENEDIKTSSON**

#### MOR-GLA4 Dynamics of Modern Glaciers I

Conveners: Anders Schomacker, Ívar Benediktsson, and Jez Everest  
Rum: Stora Salen

13:45 Morphological and sedimentological imprints of a temporary, glacier-surge ice-dammed lake, Van Mijenfjorden, Svalbard  
Lyså, Astrid; Larsen, Eiliv; Høgaas, Fedrik; Jensen, Maria; Klug, Martin; Rubensdotter, Lena; Szczucinski, Witold

14:00 The 2008 mini-surge of Múlajökull, Iceland: end-moraine formation and post-surge ice-marginal dynamics  
Benediktsson, Ívar Örn; Schomacker, Anders; Johnson, Mark D.; Jónsson, S.A.; Ingólfsson, Ó.

14:15 Late Holocene glacial history of the Drangajökull ice cap, NW Iceland, based on proglacial lake sediment records – preliminary results  
Schomacker, Anders; Larsen, Nicolaj K.; Brynjólfsson, Skafti; Guðmundsdóttir, Esther Ruth; Julie Andreassen; Lena Håkansson; Ólafur Ingólfsson

### MOR-GLA4 Dynamics of Modern Glaciers II

Conveners: Anders Schomacker, Ívar Benediktsson, and Jez Everest  
Rum: Stora Salen

15:00 Detailed monitoring of rapid deglaciation: Virkisjökull-Falljökull catchment, SE Iceland  
Everest, Jez; Bradwell, Tom; Finlayson, Andrew; Jones, Lee; O'Dochartaigh, Brighid; Hughes, Leanne; Black, Andrew; Flett, Verity; Phillips, Emrys; Maurice, Louise; Raines, Michael; MacDonald, Alan; Bergsson, Bergur; Ofeigsson, Benni

15:15 Groundwater – meltwater coupling in an active proglacial sandur in SE Iceland  
Ó Dochartaigh, Brighid; MacDonald, Alan; Andrew Black; Everest, Jez; Wilson, Paul

15:30 Fracturing, block-faulting and moulin development associated with the retreat a maritime glacier: Falljökull, SE Iceland  
Finlayson, Andrew; Phillips, Emrys; Jones, Lee

15:45 Glacier Downsizing” – the structural response of a maritime glacier to a prolonged period of retreat: evidence from Falljökull, SE Iceland  
Phillips, Emrys; Finlayson, Andrew; Tom, Bradwell; Jones, Lee; Everest, Jez

16:00 Geomorphology of the Drangajökull ice cap, NW Iceland, with focus on its three surgetype outlets  
Brynjólfsson, Skafti; Schomacker Anders; Ingólfsson, Olafur

### Wednesday January 8th

13:00 Plenary Session INGÓLFSSON & BENEDIKTSSON

### LUND I Lundadagarna i Historisk geologi och paleontology I: Paleontology, sedimentology and stratigraphy

Conveners: Vivi Vajda & Johan Gren  
Rum: Lilla salen

13:45 The sediment fill of the 'Siljan Ring' - a mirror of the Early Palaeozoic evolution of western Baltoscandia  
Lehnert, Oliver; Meinhold, Guido; Arslan Arzu; Berner, Ulrich; Calner, Mikael; Huff, Warren D.; Ebbestad, Jan Ove; Joachimski, Michael M.

14:00 First evidence of Devonian strata in Sweden – Palynological study of the Övedskloster drill-cores 1 and 2 from Skåne  
Mehlqvist, Kristina; Vajda, Vivi; Steemans, Philippe

14:15 The Silurian in Denmark: new stratigraphical results from the Sommerodde-1 well, Bornholm  
Schovsbo, Niels; Nielsen, Arne Thorshøj

### LUND II Lundadagarna i Historisk geologi och paleontology I: Paleontology, sedimentology and stratigraphy

Conveners: Mikael Calner & Anders Lindskog  
Rum: Lilla Salen

15:00 Trilobites of the Lower Cambrian Duolbasgaissa Formation, the Digermul Peninsula, northern Norway  
Ebbestad, Jan Ove R.; Högström, Anette E.S.; Høyberget, Magne; Jensen, Sören; Palacios, Teodoro; Taylor, Wendy L.T.

15:15 A mid-Cambrian trilobite fauna from the Lower Allochthon of the Blaik Nappe Complex, northern Sweden  
Weidner, Thomas; Rushton, Adrian W.A.; Ebbestad, Jan Ove R.

15:30 Early–Middle Ordovician conodont biofacies in the marginal Yangtze Platform, South China, and their paleoenvironmental implications  
Wu, Rongchang; Stouge, Svend; Percival, Ian G; Zhan, Renbin

15:45 The Hawke Bay Event: A complex regression at the Early/Mid Cambrian transition  
Nielsen, Arne Thorshøj; Schovsbo, Niels Hemmingsen

16:00 Transport pathways and source partitioning: complementary interpretations involving sediment grain size and mineralogy  
Stevens, Rodney L.

### Wednesday January 8th

13:00 Plenary Session INGÓLFSSON & BENEDIKTSSON

### ENG-GEO Engineering Geology I

Conveners: Rodney Stevens  
Rum: Nya Fest

13:45 “DS 3077 Horizontal” - new standard for representative sampling in science, technology and industry  
Esbensen, Kim H.; Petersen Julius, Lars

14:00 The curse and blessing of orientation uncertainty of objects measured in boreholes  
Stigsson, Martin

14:15 On the possible correlation between the hydraulic transmissivity of deformation zones and in situ stress  
Follin, Sven; Stigsson, Martin

### ENG-GEO Engineering Geology II

Conveners: Rodney Stevens  
Rum: Nya Fest

15:00 How to build a Metro in a large city from a geological and geotechnical point of view  
Korshøj, Joakim Stiel; Tranholm, Louise; Galsgaard, Jens

15:15 Geoelectrical Imaging for Pre-investigation of Urban Underground Infrastructure  
Dahlin, Torleif; Rosqvist, Håkan; Sparrenbom, Charlotte; Svensson, Mats; Auker, Esben; Bastani, Mehrdad; Moberg, Jonas

15:30 Characterization of fracture zones in bedrock using 2D resistivity profiling  
Rønning, Jan S.; Dalsegg, Einar; Ganerød, Guri V

15:45 Underwater ERT Survey for Site Investigation of a New Line for the Stockholm Metro  
Dahlin, Torleif; Loke, Meng Heng; Siikanen, Jonas; Höök, Marcus

16:00 Marine ERT modelling for the detection of fracture zones  
Tassis, Georgios; Tsourlos, Panagiotis; Rønning, Jan Steinar; Dahlin, Torleif

16:15 Improving communication between geologists and engineers  
Evins, Paul

### Wednesday January 8th

13:00 Plenary Session INGÓLFSSON

### PET 2 Open session: Geochemistry, mineralogy, geochronology II

Conveners: Nynke Keulen & Tod Waight  
Rum: Övre Palestra

13:45 Mantle source characteristics of mid-Proterozoic dyke swarms within the Gardar Igneous Province, South Greenland  
Bartels, A

14:00 Mantle sources during continental breakup, a geochemical-chronological study of Cretaceous dikes from New Zealand  
van der Meer, Quinten H.A.; Waight, Tod E.; Scott, James M.; Münker, Carsten; Storey,

14:15 For richer and poorer: depletion and enrichment in sub-continental lithospheric mantle xenoliths from southern Zealandia  
Waight, Tod E.; Scott, James M.; van der Meer, Quinten H.A.; Münker, Carsten

### PET3 100 years of modern metamorphic petrology: Celebrating the centennial of Eskola's Orijärvi Bulletin

Conveners: Lorraine Tual & Victoria Beckman  
Rum: Övre Palestra

15:00 **Keynote** Pentti Eskola – A Personal Outlook  
Robinson, Peter

15:30 Eskola's Mineral Facies: Yesterday and Today  
Schumacher, John C.

15:45 Fluid-induced mineral composition adjustments of Alpine stilbite  
Weisenberger, Tobias Björn; Bucher, Kurt

### Wednesday January 8th

13:00 Plenary Session INGÓLFSSON & BENEDIKTSSON

### STR-TEC2 Trans-Baltic Precambrian Correlations: Regional and Global Tectonic Reconstructions II

Conveners: Svetlana Bogdanova and Alvar Soesoo  
Rum: Nedre Palestra

13:45 A novel image of hidden crystalline basement in NE Poland at the junction of Fennoscandia and Sarmatia  
Krzeminska, Ewa; Krzeminski, Leszek; Wiszniewska, Janina; Williams, Ian S.; Petecki, Zdzisław

14:00 The Karlskrona Deformation Zone and Eringsboda granitic pluton: magmatism and deformation during the Danopolonian Orogeny  
Čečys, Audrius

14:15 Carbon isotope composition of sedimentary carbonates in the Paleoproterozoic Kolosjoki Sedimentary Formation, Pechenga Greenstone Belt, NW Russia  
Salminen, Paula E.; Karhu, Juha A.; Melezhik, Victor A.

### GEO2 Volcanology

Conveners: Hannes Mattsson and Erik Sturkell  
Rum: Nedre Palestra

- 15:00 **The Role of Thermal Stresses in Magma Fragmentation**  
Cashman, Katherine; Nicholson, Emma; Rust, Alison; Dobson, Katherine
- 15:15 **Holocene explosive volcanic activity in Iceland as recorded from Lake Lögurinn, east Iceland**  
Gudmundsdóttir; Esther, Ruth; Ingólfsson, Ólafur; Björck, Svante; Larsen, Gudrún
- 15:30 **Prehistoric Katla eruptions, Iceland: volume estimates of selected basaltic tephra layers**  
Óladóttir, Bergrún Arna; Larsen, Guðrún; Sigmarsson, Olgeir
- 15:45 **Brown snow: Remobilisation of volcanic ash from recent Icelandic eruptions**  
Nicholson, Emma; Cashman, Katharine; Beckett, Frances; Witham, Claire; Leadbetter, Susan; Hort, Matthew

#### Thursday January 9th, AM

### MOR-GLA 5 Glacial History of Scandinavia I

Conveners: Martin Jakobsson and Atle Nesje  
Rum: Stora salen

- 8:30 **Ice-free conditions in Sweden during Marine Oxygen Isotope Stage 3?**  
Wohlfarth, Barbara
- 8:45 **Drumlinised MIS 3 glaciofluvial and glaciolacustrine sediments on the Småland plain, South Sweden**  
Möller, Per
- 9:00 **The last Eurasian Ice Sheet: a chronological database and time-slice reconstruction**  
Hughes, Anna L.C.; Gyllencreutz, Richard; Mangerud, Jan; Svendsen, John Inge; Lohne, Øystein S.
- 9:15 **The Weichselian Stage in Western Finnish Lapland – glacial sedimentology and revised stratigraphy**  
Lunkka, Juha Pekka; Salonen, Veli-Pekka
- 9:30 **Modeling the Scandinavian Ice Sheet: past, present and future efforts**  
Kirchner, Nina; Ahlkrona, Josefin; Lötstedt, Per; Schuett, Jorina; Noormets, Riko; Jakobsson, Martin, Classon, Caroline
- 9:45 **Asynchronous northern ice sheets – their behavior in time and space**  
Larsen, Eiliv; Fjeldskaar, Willy; Fredin, Ola; Lyså, Astrid

### MOR-GLA 5 Glacial History of Scandinavia II

Conveners: Martin Jakobsson and Atle Nesje  
Rum: Stora Salen

- 10:30 Keynote** **The drainage of the Baltic Ice Lake: a long debated topic in Swedish Quaternary Geology**  
Björck, Svante
- 11:00 **Weichselian glaciation history and palaeo-environmental development of the SW Baltic Sea**  
Anjar, Johanna; Adrielsson, Lena; Björck, Svante; Filipsson, Helena L.; Larsen, Nicolaj Krog; Möller, Per
- 11:15 Keynote** **The Baltic Sea IODP Expedition 347 “Baltic Sea Paleoenvironment” - preliminary results from the cruise**  
Andrén, Thomas
- 11:45 **Major late glacial-early postglacial tectonic events in Lake Vättern following the Scandinavian ice sheet retreat**  
Jakobsson, Martin; Björck, Svante; O’Regan, Matt; Flodén, Tom; Greenwood, Sarah; Swärd, Henrik; Lif, Arne; Ampel, Linda; Koyi, Hemin; Skelton, Alasdair

#### Thursday January 9th, AM

### LUND III Lundadagarna i Historisk geologi och paleontology I: Paleontology, sedimentology and stratigraphy

Conveners: Johan Gren & Kristina Mehlqvist  
Rum: Lilla salen

- 8:30 Keynote** **Evolution of early biota and complex ecosystems: the Digermul succession of northern Norway**  
Högström, Anette E.S.; Ebbestad, Jan Ove R.; Jensen, Sören; Palacios, Teodoro; Høyberget, Magne & Taylor, Wendy L
- 9:00 **Fungal–prokaryotic symbiosis in the deep biosphere**  
Bengtson, Stefan; Ivarsson, Magnus
- 9:15 **Micropaleontologic and sedimentologic changes across the Volkhov–Kunda boundary at Kinnekulle, Västergötland, Sweden**  
Lindskog, Anders; Eriksson, Mats E.
- 9:30 **Aquatic palynology and its applications in studies of past nutrient and salinity changes**  
Willumsen, Pi Suhr
- 09:45 **Middle Jurassic to basal Cretaceous foraminiferal stratigraphy and water mass features on the Mid-Norwegian shelf**  
Nagy, Jenoe; Hendrichson, Randi M.

### LUND IV Lundadagarna i Historisk geologi och paleontology I: Paleontology, sedimentology and stratigraphy

Conveners: Vivi Vajda & Anders Lindskog  
Rum: Lilla Salen

- 10:30 Keynote** **The Central European Iharkút vertebrate locality: a window to the continental fauna of the Late Cretaceous western Tethyan archipelago**  
Ösi, Attila
- 11:00 **Stratigraphy and ages of the classic Neogene mammal fossil localities from Baode County, China**  
Kaakinen, Anu; Passey, Benjamin H.; Zhang, Zhaoqun; Liu, Liping; Pesonen, Lauri J.; Fortelius, Mikael
- 11:15 **Colouring the past: detailed imaging and molecular analyses of an exceptionally preserved feather from the Eocene Fur Formation of Denmark**  
Gren, Johan; Lindgren, Johan
- 11:30 **Exceptional cellular preservation in Mesozoic and Cenozoic plants, fungi and invertebrates**  
McLoughlin, Stephen; Bomfleur, Benjamin; Mörs, Thomas
- 11:45 **Documentation of the immediate K–Pg mass extinction recovery using vertebrate micro-stratigraphy**  
Bercovici, Antoine; Hunter, John; Pearson, Dean; Vajda, Vivi

#### Thursday January 9th, AM

### ECON-OIL2 Metallogeny of Greenland and Fennoscandia I

Conveners: Iain Pitcairn and Jochen Kolb  
Rum: Nya Fest

- 8:30 Keynote** **Relationships of polymetallic sulphide deposits to volcanoes, basins and faults in the Swedish Palaeoproterozoic**  
Allen, Rodney
- 9:00 **Trace element characteristics of magnetite from mineralizations in the Bergslagen ore district, central Sweden**  
Hogmalm, Johan; Tillberg, Mikael; Inerfeldt, Andreas; Nordgren, Nina; Zack, Thomas
- 9:15 **Geochemistry of the Mertainen iron ore**  
Holme, Kirsten; Debras, Céline
- 9:30 **Structural geology and spatial patterns of hydrothermal alteration at the Falun pyritic Zn-Pb-Cu-(Au-Ag) sulphide deposit, Bergslagen region, south-central Sweden**  
Kampmann, Tobias C.; Stephens, Michael B.
- 9:45 **Petrology and in situ Strontium isotope investigation of the Ni-Cu-(PGE) ore bearing Kevitsa intrusion, northern Finland**  
Luolavirta, Kirsi; Hanski, Eero; Maier, Wolfgang; O’Brien, Hugh; Lahaye, Yann; Santaguida, Frank; Voipio, Teemu

### ECON-OIL2 Metallogeny of Greenland and Fennoscandia II

Conveners: Iain Pitcairn and Jochen Kolb  
Rum: Nya Fest

- 10:30 **Au- and Ag-rich phases detected by LA-ICP-MS trace element analysis of sulphide and sulpharsenide minerals in Håkansboda copper-cobalt deposit, Bergslagen, Sweden**  
Tillberg, Mikael; Inerfeldt, Andreas; Zack, Thomas; Hogmalm, Johan
- 10:45 **The Laver 1.9 Ga large volume, low grade, Porphyry-style Cu-Au-Mo-Ag mineralization, northern Sweden**  
Wasström, Annika; Knipfer, Sebastian; Åberg, Lina
- 11:00 Keynote** **Metallogeny of Greenland**  
Kolb, Jochen
- 11:30 **Zinc potential in the high Arctic- exploring the Franklinian Basin**  
Rehnström, Emma F
- 11:45 **Alteration types within the Nalunaq Gold Deposit, South Greenland**  
Bell, Robin-Marie; Kolb, Jochen

#### Thursday January 9th, AM

### PET4 The zircon messenger: nature and experiment

Conveners: Alexander Lewerentz & Anders Scherstén  
Rum: Övre Palestra

- 8:30 **Zircon messenger; cryptic tales from arc magmas**  
Roberts, Nick M.W.; Tapster, Simon
- 8:45 **Alteration of zircon to baddeleyite: examples from nature and experiment**  
Lewerentz, Alexander; Harlov, Daniel E.; Whitehouse, Martin J.; Scherstén
- 9:00 **How clear is the message from detrital zircon?**  
Andersen, Tom
- 9:15 **0.3 b. y. of drainage stability along the Palaeozoic western Gondwana margin – detrital zircon evidence**  
Augustsson, Carita; Rüsing, Tobias; Niemeyer, Hans; Kooijman, Ellen
- 9:30 **U–Pb age and Lu–Hf signatures of detrital zircon from Palaeozoic sandstones in the Oslo Rift, Norway**  
Kristoffersen, Magnus; Andersen, Tom; Andresen, Arild
- 9:45 **Evidence for mid-Proterozoic crustal reworking in southern Scandinavia from Hf isotopes in zircon from Bornholm.**  
Waight, Tod

## PET5 Petrology (Igneous, metamorphic, sedimentary)

Convener: Tom Andersen and Karolina Bjärnberg  
Rum: Övre Palestra

- 10:30 Updating the knowledge about the SE part of the Paleoproterozoic Central Finland granitoid complex: preliminary insights from field work and geochemistry  
Heilimo, Esa; Mikkola, Perttu; Hartikainen, Aimo; Luukas, Jouni; Niemi, Sami
- 10:45 Metamorphic conditions of the Vetlanda formation, southeastern Sweden – support for a pre-TIB origin of the Oskarshamn-Jönköping Belt  
Makowsky, Felix; Mansfeld, Joakim
- 11:00 Garnet-orthopyroxene thermometry revisited: a new calibration and application to granulites and peridotites  
Olivotos, Spyros-Christos; Kostopoulos, Dimitrios
- 11:15 A new insight to A-type granites and ultra-K rocks from hard-soft acid-base (HSAB) and density functional theory (DFT) concepts  
Vigneresse, Jean-Louis
- 11:30 Petrology of delhayelite- and andremeyerite-bearing, peralkaline nephelinite from Nyiragongo, East African Rift  
Andersen, Tom; Elburg, Marlina; Erambert, Muriel
- 11:45 Chemometric verification of the geochemical evolution of dual igneous-lava rock suites in the Richtersfeld Hiab province, Namibia  
Esbensen, Kim H.; Minnitt, Richard

Thursday January 9th, AM

## HYD-ENV2 Geohazards in the Nordic and Arctic regions

Conveners: Þorsteinn Sæmundsson and Reginald Hermanns  
Rum: Nedre Palestra

- 8:30 Approach for systematic rockslide mapping of unstable rock slopes in Norway  
Hermanns, Reginald L.; Oppikofer, Thierry; Yugsi Molina, Freddy X.; Dehls, John F.; Böhme, Martina
- 8:45 Debris flow modeling for susceptibility mapping at regional to national scale in Norway  
Rubensdotter, Lena; Fischer, L; Stalsberg, K; Sletten, K
- 9:00 The melting of mountain permafrost and the Mófellshyrna debris slide in Northern Iceland  
Saemundsson Thorsteinn; Helgason, Jon; Kristinn & Petursson, Halldor G.

9:15 Are submarine landslides of industrial waste contributing to an ecological catastrophe along the rising northeastern coast of Sweden?  
Snowball, Ian; Apler, Anna; Nyberg, Johan; Zillén, Lovisa

9:30 Extreme snow avalanche winters recorded in tree-rings in the Bødalen valley, inner Nordfjord, western Norway  
Decaulne, Armelle, Eggertsson Ólafur, Laute Katja, Beylich Achim A.

## MOR-GLA2 Scandinavian bedrock landscapes: tectonic and glacial implications

Conveners: Karna Lidmar Bergström and Mats Olvmo  
Rum: Nedre Palestra

- 10:30 Burial and exhumation history of southern Sweden estimated from apatite fission-track analysis data  
Japsen, Peter; Green, Paul F.; Bonow, Johan M.; Erlström, Mikael
- 10:45 The development of granite domes and their role in understanding the geomorphological evolution in SW Sweden.  
Olvmo, Mats; Johansson, Magnus
- 11:00 Palaeovalleys on a main paleic surface of the Scandes in central and eastern South Norway  
Nystuen, Johan Petter; Gabrielsen, Roy; Morisbak Jahrsve, Erlend
- 11:15 Saprolites on- and offshore Norway: New constraints on formation processes and age  
Fredin, Ola; Zwingmann, Horst; Knies, Jochen; Sorlie, Ronald; Grandal, Else
- 11:30 Glacier/permafrost interaction, alpine landscape development and paleic surfaces  
Berthling, Ivar; Etzelmüller, Bernd
- 11:45 Inherited basement relief and glacial erosion in northern and central Sweden – a review  
Lidmar-Bergström, Karna; Olvmo, Mats

Thursday January 9th

13.00 Plenary session RING

## QUAT2 Land-Sea Interactions in a long time perspective I

Conveners: Helena L. Filipsson, Anne Birgitte Nielsen & Anneli Poska  
Rum: Stora salen

13:45 Landscape, climate, sea-level variations and human living conditions in a coastal area of western Blekinge on the Baltic sea between 11600 cal BP and AD 1000  
Broström, Anna; Persson, Carl; Svensson, Nils-Olof, Rudebeck, Elisabeth; E22- Sölvesborg-Stensås-project members

14:15 Quantitative reconstruction of Holocene land-cover in NW Europe for the evaluation of past land cover-climate interactions: first results from the Swedish LANDCLIM project  
Trondman, Anna-Kari; Gaillard, Marie-José; Sugita, Shinya; Fyfe, Ralph; Kaplan, Jed; Marquer, Laurent; Mazier, Florence; Nielsen, Anne Birgitte; Poska, Anneli; Strandberg, Gustav

## QUAT2 Land-Sea Interactions in a long time perspective II

Conveners: Helena L. Filipsson, Anne Birgitte Nielsen & Anneli Poska  
Rum: Stora salen

- 15:00 Modelling past land use changes and their effects on carbon pools -Using REVEALS and LPJ-Guess  
Nielsen, Anne Birgitte; Poska, Anneli; Åkesson, Christine, Broström, Anna
- 15:15 Reconstruction of the Swedish Baltic coastal environment over the last 6 000 years  
Ghosh, Anupam; Ning, Wenxin; Khan, Mansoor; Filipsson, Helena L.
- 15:30 Experiments with benthic foraminifera: Improving our understanding of the conditions of the past  
Duffield, Christopher James; Alve, Elisabeth
- 15:45 Effects on sea level of anthropogenic global warming has not yet occurred in the eastern North Sea to central Baltic Region  
Hansen, Jens Morten
- 16:00 Absolute sea levels of the Kattegat Sea during the last 5 000 years  
Hansen, Jens Morten
- 16:15 The present sea level rise – a natural process  
Pässe, Tore; Daniels, Johan

Thursday January 9th

13.00 Plenary session RING

## LUND V Lundadagarna i Historisk geologi och paleontology II: Weathering horizons - their formation, later reworking and final deposition

Conveners: Henning Dypvik and Lars Ribe  
Rum: Lilla salen

13:45 Deep weathering and landforms in Scandinavia – a review  
Lidmar-Bergström, K

14:15 Preglacial weathering crust in Finland  
Peuraniemi, V.

## Lund VI Lundadagarna i Historisk geologi och paleontology II: Weathering horizons - their formation, later reworking and final deposition

Conveners: Henning Dypvik and Lars Ribe  
Rum: Lilla salen

15:00 Deep weathering, neotectonics and strandflat formation in Nordland, northern Norway  
Olesen, O.; Kierulf, H.P.; Brønner, M.; Dalsegg, E.; Fredin, O.; Solbakk, T.

15:15 Granite weathering features and impact on the knowledge of arenization process  
Begonha, A.; Sequeira Braga, M.A.; Paque, H.

15:45 The evolution of the passive continental margin of Norway and its adjacent mainland – using the sub-Cambrian peneplain as a reference surface  
Gabrielsen, R. H.; Jarsve, E. M.; Lundmark, A.M.; Nystuen, J.P.; Faleide, J.I.

16:00 Basement rocks as sand factory and reservoir for the Johan Sverdrup and Edvard Grieg fields – the southern Utsira High, Norwegian North Sea  
Sørli, R., Charnock, M., Hammer, E., Maast, T. E., Amundsen, H.

16:15 Weathering profiles on the Utsira High, Norwegian North Sea – a comparison with on-shore analogues  
Riber, L., Dypvik, H., Oberhardt, N., Naqvi, S.; Sørli, R.

Thursday January 9th

13.00 Plenary session RING

## MOR-GLA 5 Glacial History of Scandinavia III

Conveners: Martin Jakobsson and Atle Nesje  
Rum: Nya Fest

13:45 Late-glacial retreat and readvance signatures in the Vättern basin, south-central Sweden  
Greenwood, Sarah; Jakobsson, Martin; O'Regan, Matt; Swärd, Henrik; Flodén, Tom

14:00 Veiki moraine – morphology, stratigraphy and paleoglaciological implications of an ice-walled lake plain topography in northern Sweden  
Hättestrand, Clas, Alexanderson, Helena, Hättestrand, Martina, Sigfúsdóttir, Thorbjörg, Vidar Jakobsen, Leif

14:15 Pre-Late Weichselian interstadial sediments in Northern Sweden  
Hättestrand, Martina; Alexanderson, Helena; Hättestrand, Clas; Sigfúsdóttir, Thorbjörg; Bjursäter, Stefan

## MOR-GLA 5 Glacial History of Scandinavia IV

Conveners: Martin Jakobsson and Atle Nesje

Rum: Nya Fest

- 15:00 The Kattegat Readvance  
Pässe, Tore
- 15:15 Rapid break-up of the Norwegian Channel Ice Stream of the Scandinavian Ice Sheet during the Last Glacial Maximum  
Svendsen, John Inge; Mangerud, Jan; Briner, Jason; Young Nicolás
- 15:30 Deglaciation of the Fennoscandian Ice Sheet at its northern margin  
Andreassen, Karin; Corner, Geoffrey D.; Stokes, Chris R.; Winsborrow, Monica, C.M.
- 15:45 Depositional environments and glacial event at Nordli following the Younger Dryas maximum advance in Leirfjord, North Norway  
Hansen, Louise; Funder, Svend; Sveian, Harald; Dretvik, Håvard; Husum, Katrine
- 16:00 The Late Weichselian deglaciation of central Scandes; new stratigraphical evidences from laminated lake sediments at Dovre, central Norway.  
Paus, Aage; Boessenkool, Sanne; Brochmann, Christian; Hafliðason, Hafliði
- 16:15 Cosmogenic surface exposure dating of the last de-glaciation in Denmark: 6 000-year age scatter suggest shielding effect controlled by periglacial landform transformation  
Houmark-Nielsen, Michael; Linge, Henriette
- 16:30 Ice dynamics and deglaciation in SW Norway constrained by LIDAR mapping and cosmogenic exposure ages of glacial landforms  
Fredin, Ola; Akçar, Naki; Romundset, Anders; Reber, Regina; Kubik, Peter; Schlüchter, Christian

### Thursday January 9th

- 13.00 Plenary session RING

## PET6 The geology of north Atlantic and high-arctic large igneous provinces

Conveners: Christian Tegner, Romain Meyer & Sverre Planke

Rum: Övre Palestra

- 13:45 Contrasting volcanic architecture and geochemistry of interdigitating flood basalt groups: structural and tectono-magmatic implications for Iceland in the Neogene  
Óskarsson, Birgir V; Riisshuus, Morten S
- 14:00 The Vestbrona Formation Re-Interpreted as Sill Complexes of Paleocene Age  
Planke, Sverre; Polteau, Stephane; Hafeez, Amer; Jerram, Dougal A.; Angard, Kristian; Prestvik,

- 14:15 Late Cretaceous alkaline volcanism in the High Arctic: Geological and geochemical constraints from the Kap Washington ignimbrites, North Greenland  
Thorarinsson, Sigurjon B; Holm, Paul M; Duprat, Helene; Tegner, C

## PET7 Chronology and Rates of Metamorphism and Deformation

Conveners: Bernard Bingen & Matthijs Smit

Rum: Övre Palestra

- 15:00** **Keynote** Linking age to stage? Progress and pitfalls in dating metamorphic cycles  
Warren, Clare; McDonald, Christopher; Mottram, Catherine; Regis, Daniele
- 15:30 Micro- to macroscale correlation of metamorphic and deformation events with *in situ* U-Pb dating and thermometry  
Möller, Andreas; Oalman, Jeffrey; Savage, Jessica; Bousquet, Romain
- 15:45 Lu-Hf and Sm-Nd garnet geochronology: Closure revisited and new applications in lithosphere studies  
Smit, Matthijs A.; Scherer, Erik E.; Mezger, Klaus; Ratschbacher, Lothar; Kooijman,
- 16:00 Exhumation of an eclogite terrane as a hot, migmatitic nappe, Sveconorwegian orogen  
Möller, Charlotte; Andersson, Jenny; Dyck, Brendan; Antal Lundin, Ildiko
- 16:15 Significance of an early Sveconorwegian (1100 Ma) granulite facies event at Flatraket and Kråkeneset, Western Gneiss Region  
Corfu, Fernando; Austrheim, Håkon; Ganzhorn, Anne-Céline
- 16:30 High T/P metamorphism at 1.45 Ga: P-T evolution and SIMS U-Pb zircon ages of paragneisses from southernmost Sweden  
Ulmius, Jan; Moller, Charlotte; Andersson, Jenn

### Thursday January 9th

- 13.00 Plenary session RING

## STR-TEC4 Evolution of the Continental Crust: growth vs. reworking I

Convener: Anders Scherstén

Rum: Nedre Palestra

- 13:45 Zircon Hf based growth models of the continental crust – a few considerations  
Scherstén Anders; Kristinsdóttir, Bára; Petersson, Andreas; Næraa, Tomas; Björnberg, Karolina; Hollis, Julie
- 14:00 Early Archean crust in the East European Craton  
Claesson, Stefan; Bogdanova, Svetlana

- 14:15 On the petrogenesis of the late Neoproterozoic Qôrqt Granite Complex in the Nuuk region of southern West Greenland  
Næraa, Tomas; Kemp, Anthony I.S; Scherstén, Anders; Rehnström, Emma F.; Rosing, Minik T.; Whitehouse, Martin

## STR-TEC4 Evolution of the Continental Crust: growth vs. reworking II

Convener: Ulf Söderlund and Andreas Petersson

Rum: Nedre Palestra

- 15:00 Neoproterozoic alkaline rich igneous magmatism at cratonization stage of western part of Karelian (Baltic) Province  
Heilimo, Esa; Mikkola, Perttu
- 15:15 The Usushwana Complex: a tale of two igneous events, and a magmatic feeder to one of Earth's earliest large igneous provinces  
Gumsley, Ashley; Olsson, Johan; Söderlund, Ulf; de Kock, Michiel; Hofmann, Axel
- 15:30 Svecofennian orogeny – an evolving orogenic system  
Korja, Annakaisa
- 15:45 Zircon U-Pb-Hf constraints on growth versus reworking of southern Fennoscandia  
Petersson, Andreas; Scherstén, Anders; Andersson, Jenny; Möller, Charlotte
- 16:00 Preservation bias in the geological record; a Fennoscandian case study  
Roberts, Nick M.W.
- 16:15 The >2 000 km-long 1.63 Ga Melville Bugt Dyke Swarm and its petrogenetic relationship to the ~1.8 Ga Ketilidian Orogen: Evidence from SE Greenland  
Klausen, Martin B; Nilsson, Mimmi K.M; Snyman, Dian; Bothma, Riaan; Kolb, Jochen; Tappe, Sebastian; Kokfelt, Thomas F; Nielsen, Troels F.D.; Denyszyn, Steven
- 16:30 Tectonic deformations in the Ediacaran-Paleozoic bedrocks of Estonia  
Systra, Ylo

### Friday January 10th, AM

## QUAT1 Quaternary Geology I

Conveners: Helena Alexanderson and Svante Björck

Rum: Stora salen

- 9:00 Wet shifts in Holocene peat records and the role of internal feedbacks: Plant macrofossil evidence from southern Sweden  
Rundgren, Mats; Kokfelt, Ulla
- 9:15 Excavation of and analysis of Coleoptera from of a late Holocene natural spring from south central Sweden  
Hellqvist, Magnus

- 9:30 A 37 kyr long record from the central South Atlantic  
Björck, Svante; Ljung, Karl; Holmgren, Sofia
- 9:45 First remains of submarine, non-marine, arctic plants from the Danish North Sea  
Bennike, Ole; Jensen, Jørn Bo; Leth, Jørgen O.; Nørgaard-Pedersen, Niels & Lomholt, Steen

## QUAT1 Quaternary Geology II

Conveners: Helena Alexanderson and Svante Björck

Rum: Stora salen

- 10:30 The effect of pre-glacial uplift on late Pliocene cooling along the Scandinavian continental margin  
Knies, Jochen,
- 10:45 Early Quaternary sediments in Denmark dated by paleomagnetism  
Kronborg, Christian; Nielsen, Ole Bjørsløv; Beyer, Claus
- 11:00 The Greenland ice sheet is more than 1 million years old  
Schmidt, Astrid M.Z.; Funder, Svend; Dahl-Jensen, Dorthe; Steffensen, Jørgen Peder; Willerslev, Eske

Plenary session SCHWEITZER

### Friday January 10th, AM

## LUND VII Lundadagarna i Historisk geologi och paleontology II: Weathering horizons - their formation, later reworking and final deposition

Conveners: Henning Dypvik and Lars Ribe

Rum: Lilla salen

- 9:00 Regional significance and zonation of granitic saprolites secondary minerals from North-to-South of Atlantic Europe  
Sequeira Braga, M.A.; Begonha, A.; Paquet, H.
- 9:15 Kaolinite group minerals from weathered anorthosite, SW Norway  
Roaldset, E.; Bering, D.; Aerts, M.; Nguyen, P.D.
- 9:30 Hirnantian (terminal Ordovician) dripstones and deep palaeo-karst in the Boda Limestone Formation, Dalarna, Sweden  
Kröger, B., Ebbestad, J.O.; Rasmussen, C. M. Ø.

## GEOBIO Geobiology I

Convener: Nils Holm

Rum: Lilla salen

- 10:30** **Keynote** Fungal bio-weathering in seafloor mineralisations  
Ivarsson, Magnus; Bengtson, Stefan



11:00 Microbial surface attachment and its importance in mineral weathering  
Ahmed, Engy; Holmström, Sara J.M.

Plenary session SCHWEITZER

### Friday January 10th, AM

#### ECON-OIL3 Petroleum Geology and Industrial Minerals

Convener: Mai Britt Mørk

Rum: Nya Fest

8:45 The Norwegian CO<sub>2</sub> storage atlas  
Halland, Eva K; Bjørheim, Maren

9:00 Current and future utilization of the Cambro-Ordovician sedimentary rocks in the Baltic syncline  
Palmlöf, Erik; Liljedahl, Thomas

9:15 Mechanisms of chemical compaction and quartz cementation – examples from Triassic and Jurassic sandstones from the western Barents Shelf  
Mørk, Mai Britt E.

9:30 Sedimentary basins of Somalia and their petroleum potential: out of sight out of mind  
Salad Hersi, Osman

9:45 Mineral and chemical characteristics of high-whiteness calcite marbles, northern Norway  
Korneliusson, Are; Raanes, Agnes

#### ECON-OIL3 Petroleum Geology and Industrial Minerals

Conveners: Mai Britt Mørk

Rum: Nya Fest

10:30 Masi Quartzite, quality and occurrence  
Aasly, Kari Aslaksen; Meyer, Gurli

10:45 Killing the myths: a geological view on ancient stone quarrying technology  
Heldal, Tom

11:00 The inner life of millstones: 1 200 years of quarrying dissected by provenance studies  
Meyer, Gurli B.; Grenne, Tor; Heldal, Tom

Plenary session SCHWEITZER

### Friday January 10th, AM

#### PET8 Progress of laser ablation ICP-MS in Earth Sciences I

Conveners: Ellen Kooijman & Thomas Zack

Rum: Övre Palestra

8:30 **Keynote**  
Recent advances in 193nm laser ablation-ICP-MS: characteristics of sensitivity, stability, and efficiency  
McFarlane, Christopher R.M.

9:00 Laser ablation U-(Th)-Pb geochronology; progress and pitfalls  
Roberts, Nick M.W.; Horstwood, Matthew S.A.

9:15 U-Pb LA-ICPMS dating using variable common Pb-bearing accessory mineral standards with VizualAge/Iolite  
Chew, David; Petrus, Joe; Kamber, Balz

9:30 Current Challenges in Laser Ablation ICP-MS  
Zack, Thomas, Hogmalm, Johan; Tillberg, Mikael

9:45 Obsidian Glass: a potential external accuracy reference material for LA ICPMS analysis  
Ulrich, Thomas; Kamber, Balz S.

#### PET8 Progress of laser ablation ICP-MS in Earth Sciences II

Conveners: Ellen Kooijman & Thomas Zack

Rum: Övre Palestra

10:30 Evaluating the discordance of baddelyite U-Pb dates: clues from combined TIMS and LA-ICPMS isotopic analyses  
Söderlund, Ulf; Ibanez-Mejia, Mauricio; Fuchs, Robert; Nilsson

10:45 Applications of in situ Pb, S and Sr isotopic analysis on thin sections using LA-MCICPMS: Additional methods to decipher ore deposits.  
Lahaye, Y.; O'Brien, H.; Molnar, F.; Shenhong, Y.; Maier, W.

11:00 Laser ablation split-stream analysis: advantages and prospects for the new Vegacenter  
Kooijman, Ellen

Plenary session SCHWEITZER

### Friday January 10th, AM

#### STR-TEC3 Orogens and orogen dynamics I

Convener: Arild Andersen

Rum: Nedre Palestra

8:30 The Vaasa Dome: an in-situ magmatic dome?  
Chopin, Francis; Korja, Annakaisa; Hölttä, Pentti

8:45 The Albacken intrusion in the western part of the Granite and Diatexite Belt, central Sweden: Is it a Revsund granite?  
Högdahl, Karin; Sjöström, Håkan; Väisänen, Markku; O'Brien, Hugh

9:00 Coupled oroclinal in the central part of the composite Svecofennian orogen: From linear magmatic arc to equidimensional continental crust

Lahtinen, Raim; Johnston, Stephen T.; Nironen, Mikko

9:15 The role of granulite-facies shear zones in the spreading of the orogenic crust in southern Finland  
Torvela, Taina; Kurhila, Matti

9:30 The case for a mid-crustal channel flow during the Sveconorwegian orogeny?  
Bingen, Bernard; Viola, Giulio; Yi, Keewook; Engvik, Ane

9:45 Terranes within the Arctic Caledonides and their constraints on Early Paleozoic orogenic evolution  
Andresen, Arild; Agyei-Dwarko, Nana Yaw Nana; Steltenpohl, Mark G.; Augland, Lars E.

#### STR-TEC3 Orogens and orogen dynamics II

Convener: Arild Andersen

Rum: Nedre Palestra

10:30 Revealing hidden parts of the Caledonian orogen by provenance analysis of Mesozoic sandstones  
Lundmark, Mattias; Kristoffersen, Magnus; Thomsen, Tonny Bernt; Gillhespy, Lewis; Gabrielsen, Roy

10:45 Mixed carbonate-siliciclastic facies developments within a foreland basin fill: The Upper Ordovician and Silurian in the Oslo Region  
Olaussen, Snorre; Hanken, Nils-Martin; Larsen, Bjørn T.; Gabrielsen, Roy H.; Pedersen, Jon Halvard

11:00 Lithotectonic framework and a palaeotectonic model for the 2.0–1.8 Ga orogenic system in northern Europe  
Stephens, Michael

Plenary session SCHWEITZER

### Friday January 10th, AM

#### OUT-ED Outreach and education: Reaching out with WOW to the Many! I

Conveners: Linda Wikström och Elisabeth Einarsson

Rum: Sångsalen

8:30 Geology in school – interdisciplinary teaching based on Lgr11 with geology as the theme  
Einarsson, Elisabeth

8:45 Developing Earth science education research  
Hellqvist, Magnus; Lundqvist, Jennie; Hedmark, Mia

9:00 ABCG heritage-project and Barents tour for geotourists  
Johansson, Peter

9:15 Anglesey – a landscape carved by ice: a web-based, interactive landform map for Anglesey North Wales (UK) from the British Geological Survey  
Phillips, Emrys; Ritchie, Calum; Oliver, Lelsey; Everest, Jez

9:30 Geoconservation – why should we care?  
Lundqvist, Sven; Ransed, Gunnel

9:45 Swedish Network of Geoparks  
Wickström Linda M.

#### OUT-ED Outreach and education: Reaching out with WOW to the Many! II

Conveners: Linda Wikström och Elisabeth Einarsson

Rum: Sångsalen

10:30 The new edition of "Landet blir til – Norges geologi"  
Rangnes, Kristin;

10:45 Urban stones as storytellers  
Jansen, Øystein J

11:00 HELP – I'm on TV  
Jansen, Øystein J

Plenary session SCHWEITZER

### Friday January 10th,

13:00 Plenary session NORDIC GEOSCIENTIST

#### QUAT1 Quaternary Geology III

Conveners: Helena Alexanderson and Svante Björck

Rum: Stora salen

13:45 Inland dunes and cover sand in southern Sweden and Norway – evidence of late glacial and historical aeolian activity  
Alexanderson, Helena; Bernhardson, Martin; Henriksen, Mona; Jakobsen, Leif V.; Shrestha, Rajendra

14:00 Coastal lagoon sediments as a recorder of Holocene landscape evolution and sea-level development: Samsø, southern Kattegat Sea, Denmark  
Sander, Lasse; Fruergaard, Mikkel; Johannessen, Peter N.; Morigi, Caterina; Nielsen, Lars Henrik; Pejrup, Morten

14:15 Glacio-isostatic equilibrium during the Bølling Interstadial in Western Iceland  
Norðdahl, Hreggviður; Ingólfsson, Ólafur

#### MOR-GLA3 Using LiDAR in Geomorphology II

Conveners: Clas Hättestrand and Mark Johnson

Rum: Stora salen

- 15:00 Drumlin morphology and distribution in Sweden  
Dowling, Thomas P.F.; Spagnolo, Matteo;  
Hättestrand, Clas
- 15:15 Using LiDAR DEM in validating and interpreting ancient shorelines in Finland  
Ojala, Antti E.K.; Palmu, Jukka-Pekka
- 15:30 Rootless shields at Dimmuborgir, northern Iceland revealed by airborne laser mapping  
Skelton, Alasdair; Sturkell, Erik;  
Jakobsson, Martin; Einarsson, Draupnir
- 15:45 Postglacial faults and Pulju moraine detected through airborne LiDAR in Palojärvi, Finnish Lapland  
Sutinen, Raimo, Hyvönen, Eija,  
Middleton, Maarit; Ruskeeniemi, Timo
- 16:00 Low amplitude Rogen moraines mapped with LIDAR based DEM  
Jakobsen, Peter Roll; Klint, Knud Erik

### Friday January 10th,

13:00 Plenary session NORDIC GEOSCIENTIST

### GEOBIO Geobiology II

Convener: Nils Holm  
Rum: Lilla salen

- 13:45 Rapid quantification of functional genes involved in carbon and nitrogen metabolism in deep subsurface microbial communities in Fennoscandian bedrock fluids  
Purkamo, Lotta; Bomberg, Malin; Nyssönen, Mari; Kietäväinen, Riikka; Ahonen, Lasse;  
Kukkonen, Ilmo; Itävaara, Merja
- 14:00 Arsenic crisis in the aftermath of the Precambrian ice ages  
Chi Fru, Ernest
- 14:15 Magnetic quantification of Fe and S bound as bacterial greigite in laminated sapropels in the deeper basins of the Baltic Sea  
Reinholdsson, Maja; Snowball, Ian

### GEOBIO Geobiology III

Convener: Nils Holm  
Rum: Lilla salen

- 15:00 Early life and its implications for astrobiology – a case study from Bitter Springs Chert, Australia  
Vajda, Vivi; Sigeman, Hanna
- 15:15 Analysis of single microbial cells links functions to taxonomy of the uncultured microbial communities in Fennoscandian bedrock fluids  
Bomberg, Malin; Rajala, Pauliina;  
Itävaara, Merja

### Friday January 10th,

13:00 Plenary session NORDIC GEOSCIENTIST

### ECON-OIL1 Ore Formation and Exploration I

Conveners: Iain Pitcairn and Jochen Kolb  
Rum: Nya Fest

- 13:45 Geological and mineralogical aspects of mineral carbonation of rocks and mine tailings: Economical perspective  
Sjöblom, Sonja; Eklund, Olav
- 14:00 Alteration patterns of the Kristineberg area as revealed by 3D geochemical modelling  
Chmielowski, Riia; Jansson, Nils
- 14:15 South Greenland – a mineral treasury reflected in geochemical exploration data  
Steenfelt, Agnete

### ECON-OIL1 Ore Formation and Exploration II

Conveners: Iain Pitcairn and Jochen Kolb  
Rum: Nya Fest

- 15:00 A new type of Cu-Ni-PGE deposit in the Rein fjord ultramafic (UM) complex, Seiland Igneous Province (SIP), Norway  
Larsen B., Rune; Oen, Endre;  
Whitehouse, Martin
- 15:15 Mineral chemistry and boron-isotope characteristics of tourmaline in the orogenic gold deposits of the Archean Hattu schist belt, eastern Finland  
Molnár, Ferenc; Mänttari, Irmeli; Whitehouse, Martin; Sorjonen-Ward, Peter; Sakellaris, Grigorios; Käpyaho, Asko
- 15:30 Behaviour of Au, As, Sb, Se and Te during the hydrothermal alteration of the oceanic crust: a study case from IODP site 1256D.  
Patten, Clifford; Pitcairn, Iain
- 15:45 Mobility of gold during metamorphism and the formation of orogenic gold deposits  
Pitcairn, Iain

### Friday January 10th,

13:00 Plenary session NORDIC GEOSCIENTIST

### PET8 Progress of laser ablation ICP-MS in Earth Sciences III AND ROUND TABLE

Conveners: Ellen Kooijman & Thomas Zack  
Rum: Övre Palestra

- 13:45 Validating LA-ICP-MS data for rocks and minerals: A new strategy for manufacturing homogeneous standards  
Garbe-Schönberg, Dieter

### HYD-ENV3 Environmental Geology

Conveners:  
Rum: Övre Palestra

- 15:00 CO<sub>2</sub> Storage Atlas, the Barents Sea  
Bjørnstad, Andreas; Rød, Rita Sande;  
Riis, Fridtjof
- 15:15 Skånestrand – a seamless land/marine geodatabase along the coast of Skåne  
Malmberg Persson, Kärstin; Nyberg, Johan
- 15:30 The comparison of different sampling methods on arsenic and some metal concentrations in rock aggregate product samples in the ASROCKS demonstration sites in Tampere region, southern Finland  
Hatakka, Tarja; Tarvainen, Timo; Härmä, Paavo;  
Ketola, Terhi; Vuokko, Jouko; Nurmi Heikki;  
Nyholm, Tuure; Pullinen, Arto; Porkka, Tero;  
Hannukainen, Lari and Backman, Birgitta
- 15:45 Functional Facies for environmental risk and water-resource management (Gothenburg City and Niger Delta near Port Harcourt)  
Stevens, Rodney L.1
- 16:00 Modified vermiculite for water purification  
Rama, Miradije; Laiho, Taina; Eklund, Olav

### Friday January 10th,

13:00 Plenary session NORDIC GEOSCIENTIST

### STR-TEC3 Orogens and orogen dynamics III

Convener: Arild Andersen  
Rum: Nedre Palestra

- 13:45 Early Carboniferous thrusting in the Greenland Caledonides  
Pierpaolo, Guarnieri
- 14:00 The origin of allochthonous terranes of the North American Cordillera: the Aptian-Eocene movements  
Bjaerke, Tor

### STR-TEC3 Orogens and orogen dynamics IV

Convener: Arild Andersen  
Rum: Nedre Palestra

- 15:00 **Keynote** Insight into the dynamics of gneiss and migmatite domes from nature and numerical modeling  
Teyssier, Christian; Rey, Patrice F.; Whitney, Donna L.
- 15:30 Asymmetric lateral flow of over-thickened crust: Analogue experiments from the Svecofennian orogen  
K. Nikkilä; H. Koyi; A. Korja; O. Eklund

- 15:45 Sub-lithospheric small scale convection – a process for continental collision magmatism  
Kaislaniemi, Lars; van Hunen, Jeroen;  
Allen, Mark B. ; Neill, Iain



# Posters

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<b>Hydrogeology</b>		
P1	HYD-ENV1	Skånestrand – a seamless land/marine geodatabase along the coast of Skåne Malmberg Persson, Kärstin; Nyberg, Johan
P2	HYD-ENV1	CO <sub>2</sub> storage atlas for Sweden — a contribution to the Nordic Competence Centre for CCS, NORDICCS Möl Mortensen, Gry
P3	HYD-ENV1	Relative Evaluation of Groundwater Resources in Sweden Nisell, Jakob; Thorsbrink, Magdalena ; Dahlgvist, Peter ; Holgersson, Björn
<b>Geohazards</b>		
P4	HYD-ENV2	Surficial evidence for early Holocene faulting and seismicity, Bollnäs Sweden Smith, Colby; Sundh, Martin ; Mikko, Henrik
P5	HYD-ENV2	Observations from point load testing of variable rock types in the footwall of the Kiirunavaara iron ore, northernmost Sweden Lindgren, Karin; Andersson, Ulf B.
<b>Engineering Geology</b>		
P6	ENG-GEO	Helicopter-borne FEM survey to delineate quick-clay layers in a land-slide area from Norway Baranwal, Vikas C.; Dalsegg, Einar; Dretvik, Håvard; Rønning, Jan S.; Solberg, Inger-Lise ; Tønnesen, Jan F.
P7	ENG-GEO	Rock expansion caused by ultrasound Gray, Amber; Hedberg, Claes
<b>Ore Formation and Exploration</b>		
P8	ECON-OIL1	Development of low-impact exploration methods promoting the Green Mining concept in Finland Sarala, Pertti; Nykänen, Vesa
P9	ECON-OIL1	Reaching towards a sustainable mining industry in Finland – A framework of influence Tuusjärvi, Mari
P10	ECON-OIL1	Source rock geochemistry of Early Silurian black shales of Severnaya Zemlya, Russian Arctic Bogolepova, Olga K.1; Kaye, Matthew N.; Gubanov, Alexander P.
P11	ECON-OIL1	World Basement Geological Map - a new platform for global reconstructions Gubanov, Alexander P. , Mooney, Walter D.
P12	ECON-OIL1	The CO <sub>2</sub> Storage Atlas In The Norwegian Sea With Simulation Case Study Nordland Ridge Mujezinovic, Jasminka
<b>Metallogeny of Greenland and Fennoscandia</b>		
P13	ECON-OIL2	Genesis of Pb-Ag-Cu-Fe-Zn-(Au-Sb-As) mineralisation at Hornkullen, Bergslagen, Sweden: insights from ore mineralogy, textural relations and geothermobarometry Andersson, Stefan; Jonsson, Erik; Högdahl, Karin
P14	ECON-OIL2	Kleva – a TIB-related mafic Ni-Cu sulfide deposit? Björnberg, Karolina; Scherstén, Anders; Söderlund, Ulf

Poster #	Session	Title and authors
P15	ECON-OIL2	The Barents Project: Enhancing knowledge of the geological evolution of northern Sweden Grigull, Susanne; Berggren, Robert; Bergman, Stefan; Jönberger, Johan, Antal Lundin; Ildikó, Luth; Stefan, Lynch, Edward, Martinsson; Olof, Thörnelöf, Mats
P16	ECON-OIL2	Localization of dextral transpression along the Karesuando-Arjeplog deformation zone, Akkiskera-Kuormakka area, northern Sweden Luth, Stefan; Thörnelöf, Mats; Berggren, Robert ; Antal Lundin, Ildikó
P17	ECON-OIL2	Structure of the Outokumpu Cu-Ni ore district revealed by combined 3D modelling and 2D high-resolution seismic reflection data Saalmann, Kerstin; Laine, Eeva-Liisa
P18	ECON-OIL2	Magnetite oxygen isotope constraints on the genesis of Bastnäs-type REE mineralisation in Bergslagen, Sweden Sahlström, Fredrik; Jonsson, Erik; Högdahl, Karin; Harris, Chris
P19	ECON-OIL2	Dating a gold-bearing hydrothermal event, in the Paleoproterozoic Tasiilaq area, Nagssugtoqidian Orogen, South-East Greenland aden, Katrine; Kolb, Jochen; Thomsen, Tonny B.
P20	ECON-OIL2	BIF-hosted REE silicate mineralisation at Högfors, Bergslagen, Sweden Jonsson, Erik; Högdahl, Karin; Sahlström, Fredrik; Majka, Jarek
P21	ECON-OIL2	Alteration types within the Nalunaq Gold Deposit, South Greenland Bell, Robin-Marie; Kolb, Jochen
P22	ECON-OIL2	Eudialyte decomposition and fractionation of REE and HFSE in the kakortokites of the Ilímaussaq Complex, South Greenland Borst, Anouk M.; Waight, Tod; Nielsen, Troels F.D.; Kalvig, Per
P23	ECON-OIL2	Stable isotopes as a geochemical tool in mineral exploration: case study from Central East Greenland Hoffritz, Sara; Bernstein, Stefan; Dennis, Bird; Korte, Christoph
<b>Lundadagarna i Historisk Geologi och Paleontologi</b>		
P24	LUNDPAL	Triassic terrestrial Buntsandstein, Germany: separate, coeval transport paths revealed by petrography, geochemistry, and cathodoluminescence Augustsson, Carita; Hilse, Ulrike; Meyer, Marcus; Kunkel, Cindy; Aehnelt, Michaela; Gaupp, Reinhard
P25	LUNDPAL	Carbon isotope stratigraphy of the Hirnantian oolite at Vettre road-cut, Langøyene Formation, Oslo, Norway Calner, Hanna; Calner, Mikael; Lehnert, Oliver
P26	LUNDPAL	$\delta^{13}\text{C}$ stratigraphy of the Lower-Middle Ordovician 'orthoceratite limestone' of Öland, southern Sweden Calner, Mikael; Lehnert, Oliver; Dahlqvist, Peter; Wu, Rongchang; Joachimski, Michael M.
P27	LUNDPAL	The Vargfors basin: the last vestige of the Gothian ocean Talbot, Christopher J.; Eklöf, Sara C.A.
P28	LUNDPAL	Variations in depositional environment across Adventdalen, from Operafjellet to Breinosa Guðmundsdóttir, Anna Stella
P29	LUNDPAL	The Lower Cambrian Duolbasgaissa Formation, the Digermul Peninsula, northern Norway Högström, Anette E.S.; Ebbestad, Jan Ove R.; Jensen, Sören; Palacios, Teodoro; Høyberget, Magne; Taylor, Wendy L.T.

Poster #	Session	Title and authors
P30	LUNDPAL	Clay mineralogy and geochemistry of an upper Silurian (Ludlow) bentonite bed from Bjärsjölagård, Skåne, Sweden Wigforss-Lange, Jane
P31	LUNDPAL	Helcionelloid molluscs from Cambrian Series 2 strata in Sweden: Composition and stratigraphic implications Cederström, Peter; Ebbestad, R. Jan Ove; Ahlberg, Per
P32	LUNDPAL	Comparison of three different disintegration methods for chalk foraminifer studies Arp, Trine; Rasmussen; Jan Audun; Stemmerik, Lars
P33	LUNDPAL	Molluscan protoconchs from the early Silurian anoxic strata of Severnaya Zemlya, Arctic Russia Gubanov, P. Alexander; Bogolepova, K. Olga
P34	LUNDPAL	Oncoids and stromatolites in the Holen Limestone (Darrivilian, Middle Ordovician) at Kinnekulle, Västergötland, Sweden Lindskog, Anders
P35	LUNDPAL	A paleontological study of the Campanian (Upper Cretaceous) sedimentary succession at Åsen, Kristianstad Basin, southern Sweden Einarsson, Elisabeth; Iqbal, Faisal; Bercovici, Antoine; Vajda, Vivi
<b>Modeling of P-T-fluid Conditions in Metamorphic Studies</b>		
P36	PET1	Opx-bearing gneisses of Vesterålen, North Norway; granulite facies metamorphism of an Archean to Palaeoproterozoic complex Engvik, Ane K.; Davidsen, Børre; Lutro, Ole; Schiellerup, Henrik; Tveten, Einar
P37	PET1	Sveconorwegian granulite-facies metamorphism in the Kragerø-Bamble area, S Norway Engvik, Ane K.; Bingen, Bernard; Marker, Mogens; Solli, Arne
P38	PET1	Temperature and fluid variations in metamorphic rocks in Nautanen, Gällivare, Sweden Tollefsen, Elin; Skelton, Alasdair; Bergaman, Stefan; Wanhainen, Christina
<b>Open Session: Geochemistry, Mineralogy, Geochronology</b>		
P39	PET2	Hydrogeochemical changes coupled with earthquakes in Hafrolaekur, northern Iceland Andrén, Margareta; Skelton, Alasdair; Siegmund, Heike; Mörth, Carl- Magnus; Stockmann, Gabrielle; Hjartsson, Hreinn
P40	PET2	Store Mosse 2.0: The Story in the Dust Geochemistry Kylander, Malin; Martinez, Cortiza A.; Bindler, R.; Rauch, S.; Mörth, C-M
P41	PET2	Identifying paleotsunami deposits in Thailand using geochemical analyses Löwhagen, Linda; Jankaew, Kruawun; Kylander, Malin; Wohlfarth, Barbara
P42	PET2	Rutile and Zircon Geochronology and Geochemistry of Banded Rocks from the Isua Supracrustal Belt, SW Greenland Nielsen, Line S.; Rosing, Minik; Kokfelt, Thomas F.; Thomsen, Tonny B.
P43	PET2	Geochronology of the Norra Kärr alkaline complex, southern Sweden Sjöqvist, Axel S.L.; Cornell, David H.; Andersen, Tom; Andersson, Ulf B.; Christensson, Ulf I.; Ranjer, Stina J.E.; Holtstam, Dan; Leijd, Magnus

Poster #	Session	Title and authors
P44	PET2	Geochemical modelling of aquifer water from Húsavík, northern Iceland and hydrochemical responses to earthquakes Stockmann, Gabrielle ; Andrén, Margareta ; Skelton, Alasdair ; Wästeby, Niklas ; Claesson Liljedahl, Lillemor ; Mörth, Magnus ; Hjártsson, Hreinn
P45	PET2	Crystallographic and spectroscopic analysis of zoisite Weis, Franz; Lazor, Peter; Skogby, Henrik
P46	PET2	Hydrothermal phonolite alteration in the Kaiserstuhl Volcanic Complex, Germany Weisenberger, Tobias B.; Spürgin, Simon
P47	PET2	U-Pb baddeleyite dating of NE-trending feldspar-phyric dolerite dykes in southeastern Kaapvaal craton: Validating proposed linkages to magmatic events on the Kaapvaal craton Rådman, Johan; Gumsley, Ashley; Klausen, Martin B.
<b>The Zircon Messenger:</b>		
P48	PET4	Detrital zircon in young sediments from eastern South Africa: Recycling vs. local sources Andersen, Tom; Elburg, Marlina; Cawthorn-Blazeby, Anton
P49	PET4	Zircon formation in gabbro to garnet amphibolite transition, Herrestad, Eastern Segment, Sveconorwegian Province. Beckman, Victoria ; Möller Charlotte ; Söderlund, Ulf
<b>Petrology</b>		
P50	PET5	Petrology of the 2.7 Ga Vend Om Intrusion, Skjoldungen Alkaline Province, SE Greenland Maarupgaard, Bjørn P.; Tegner, Christian; Kokfelt, Thomas F.; Klausen, Martin B.
P51	PET5	Detailed mapping using aerial photos and automatic rendering of outcrops Sørensen, Bjørn Eske; Granseth, Anette Utgård
P52	PET5	Reproducing interference colors of common minerals combining color theory and optical crystallography Sørensen, Bjørn Eske
P53	PET5	Plagioclase ultraphyric basalts in the Neogene Austurhorn intrusive complex, SE Iceland Thorarinsson, Sigurjon B; Tegner, Christian; Waight, Tod E.
P54	PET5	A Study of Mantle Xenoliths from the Quarternary Eifel Volcanic Fields Søgaard-Jensen, Chr.; Zimmermann, H.D.
<b>The Geology of the North Atlantic</b>		
P55	PET6	3D mapping of lavas: inferences on the structural evolution of the Kap Dalton Graben, Blosseville Kyst, East Greenland Sørensen, Erik Vest ; Pedersen, Asger Ken; Larsen, Lotte Melchior
<b>Progress of Laser Ablation ICP-MS in Earth Sciences</b>		
P56	PET8	Laser ablation split-stream analysis: advantages and prospects for the new Vegacenter Kooijman, Ellen
P57	PET8	Simultaneous zircon age & trace element analysis by LA-SF-ICP-MS Thomsen, T.B.

Poster #	Session	Title and authors
<b>Structural Geology and Tectonics</b>		
P58	STR-TEC1	Elements of the structural evolution at Kiirunavaara, northernmost Sweden Berglund, Johan; Andersson, Ulf B.
P59	STR-TEC1	Analogue modelling of ductile deformation at ore lenses in Grängesberg, Bergslagen, Sweden Eklöf, Sara C.A.; Högdahl, Karin; Koyi, Hemin A.
P60	STR-TEC1	Reconstruction of the coastal impact of the Indian Ocean tsunami on December 26, 2004 Ericsson, Linda; Skelton, Alasdair
P61	STR-TEC1	Numerical models of finite deformation within down-built diapirs: effects of composite rocksalt rheology on deformation patterns Fuchs, Lukas; Koyi, Hemin; Schmeling, Harro
P62	STR-TEC1	Fracture patterns and fault kinematics in the Bohus granite at Smögen, SW Sweden Hallinder, Stina; Berglund, Johan
P63	STR-TEC1	The Nesflaten supracrustal unit – a polydeformed Mesoproterozoic unit in SW Norway Dalslåen, Bjørgunn Heggem; Jacobs, Joachim; Slagstad, Trond; Marker, Mogens
P64	STR-TEC1	Post-depositional thermal history: inherited fission tracks Jensen, Peter Klint; Hansen, Kirsten
P65	STR-TEC1	Ordovician sediments sandwiched between Proterozoic basement slivers in the southern part of the Siljan Ring, central Sweden Arslan, Arzu; Lehnert, Oliver; Guido Meinhold
P66	STR-TEC1	Structural and metamorphic evolution of the basal shear zone of a c. 1 Ga eclogite domain in the Sveconorwegian Orogen, Sweden Tual, Lorraine; Möller, Charlotte; Pinan-Llamas, Aranzazu
P67	STR-TEC1	New insights to the Geological history of the Southern part of the Nags sugtoqidian orogeny in Western Greenland from lineament mapping along the Kangerlussuaq-Russell Thrust Zone Engstrom, Jon; Klint, Knud Erik S.
P68	STR-TEC1	Structural and kinematic analyses of the Håkaneset subaerial/subaquatic rockslide along Tinnsjø, Telemark, Norway Sollie, Inger Lise; Hermanns, Reginald L.; Eilertsen, Raymond; Eiken, Trond
<b>Trans-Baltic Precambrian Correlations: Regional and Global Tectonic Reconstructions</b>		
P69	STR-TEC2	Postglacial and recent paleoseismic dislocations in the SE part of Fennoscandia and on the marginal zone of the Russian Platform Systra, Ylo; Spungin, Vadim; Shvarev, Sergei
P70	STR-TEC2	3D magnetic modeling of the Korsun'-Novomirgorod pluton and the Novoukrainka massif (Ukrainian Shield), and its geological interpretation Pashkevich, I.K. ; Bakarjeva, M.I.; Mychak, S.
P71	STR-TEC2	The pre- to early-Sveconorwegian history of southwest Norway Roberts, Nick M W, Slagstad, Trond, Marker, Mogens, Røhr, Torkil
P72	STR-TEC2	Evolution of the Precambrian crust in Lithuania Skridlaite, Grazina; Čečys, Audrius

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P73	STR-TEC2	Tectonothermal evolution of the crust of the north-western Belarus during Palaeo- and Mezoproterozoic Taran, L.
P74	STR-TEC2	Multistage Danopolonian deformation in the E-W trending Polotsk-Kurzeme Fault Belt, Lithuania Vejeļyte, Irma; Bogdanova, Svetlana
<b>Orogens and Orogen Dynamics</b>		
P75	STR-TEC3	Mid Ordovician Leucogranites in the Lower Seve Nappe of central Jämtland, Swedish Caledonides Li, Yuan; Gee, David. G.; Iwona Klonowska; Henning Lorenz; Anna Ladenberger
P76	STR-TEC3	The structure of the Kakari area with implications to the structural evolution of the Palaeoproterozoic Peräpohja Belt, Northern Finland Nieminen, Ville; Skyttä, Pietari; Piippo, Simo; Huovinen, Irmeli; Kilpeläinen, Timo
P77	STR-TEC3	The Gillberga synform – an upper-crustal orogenic lid? Persson Nilsson, Katarina; Lundqvist, Lena
P78	STR-TEC3	Evolution of the Hardangervidda-Ryfylke Nappe Complex, SW Norwegian Caledonides Roberts, N.M.W.; Parrish, R.R.; Horstwood, M.S.A
P79	STR-TEC3	Structural analysis and 3D-modelling of the structures controlling the spatial distribution and structure of Cu- and Au-deposits in the Peräpohja Belt, Northern Finland Skyttä, Pietari; Käpyaho, Asko; Lauri, Laura; Piippo, Simo; Nieminen, Ville; Kilpeläinen, Timo; Huovinen, Irmeli; Kinnunen, Janne
P80	STR-TEC3	Lateral spreading in the Svecofennian mid-crust revealed by seismic attribute analysis Torvela, Taija; Moreau, Julien; Butler, Robert; Korja, Annakaisa; Heikkinen, Pekka
P81	STR-TEC3	Extension versus contraction in the East Greenland Caledonides Andresen, Arild; Hauge, Kristina; Gasser, Deta
<b>Evolution of the Continental Crust: Growth vs. Reworking</b>		
P82	STR-TEC4	Field Relationships, Petrography and Geochemistry of Proterozoic Dyke Swarms in the Umivik Area, SE Greenland Bothma, Riaan; Klausen, Martin, B.
P83	STR-TEC4	Tectonophysical interpretation of the junction zone between the Fennoscandian, Sarmatian and Volga-Uralian segments of the East European Craton Garetsky, Radim. G., Karatayev, German I.
P84	STR-TEC4	Kinematic constraints on the formation of gneiss domes in the Archaean Yilgarn Craton, Western Australia. Hansman, Reuben; Gessner, Klaus; Thébaud, Nicolas; Zibra, Ivan; Uwe, Ring; Duclaux, Guillaume
P85	STR-TEC4	Zircon geochronology of the Skjoldungen region, SE Greenland Næraa, Tomas ; Kokfelt F. Thomas; Thrane Kristine
P86	STR-TEC4	Relationships between basin architecture, basin closure, and occurrence of sulphide-bearing schists: an example from Tampere Schist Belt, Finland Kalliomäki, Henrik ; Torvela, Taija; Moreau, Julien; Kähkönen, Yrjö

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