

CONFERENCE PROGRAMME

MONDAY, MAY 23

REGISTRATION & ICEBREAKER

18:00-20:00 *Location: Geological Survey of Norway, Leiv Eirikssons vei 39, Trondheim*

TUESDAY, MAY 24

WELCOME & INTRODUCTION

09:00-09:10 *M. Smelror & L.R. Bjarnadóttir*

SESSION 1

09:10-09:40 **KEYNOTE: DATED: Deciphering the chronology and evolution of the Eurasian ice sheets**

A.L.C. Hughes, R. Gyllencreutz, J. Mangerud, J.I. Svendsen

09:40-10:00 **Causes of asynchronous glacial maxima of the last Scandinavian Ice Sheet**

E. Larsen, O. Fredin, A. Lyså, D. Ottesen

10:00-10:20 **Reconstructing Weichselian ice sheet dynamics and extent in the eastern Barents Sea based on marine geophysical data**

M. Winsborrow, L. Polyak, V. Gatuallin, H. Patton, A. Hubbard, K. Andreassen

10:20-10:40 **Submarine Landforms and Glacimarine Sedimentary Processes in Lomfjorden, Svalbard**

K. Streuff, C. Ó Cofaigh, R. Noormets, J. Lloyd

10:40-11:00 **Younger Dryas-Holocene glacial advance in De Geerbukta, NE Spitsbergen: climate controlled, or glacial system tuning to Holocene mode?**

Ó. Ingólfsson, W. Farnsworth, A. Schomacker, L. Håkansson, L. Allaart

11:00-11:20 COFFEE BREAK

SESSION 2

11:20-11:40 **Dynamic Holocene history of a Spitsbergen fjord-system, western Svalbard**

W.R. Farnsworth, Ó. Ingólfsson, R. Noormets

11:40-12:00 **Buried ice-berg-keel scouring features in the southern Spitsbergenbanken, NW Barents Sea**

M. Zecchin, M. Rebesco, R.G. Lucchi, M. Caffau, H. Lantzsch, T.J.J. Hanebuth

12:00-12:20 **Timing and frequency of glacigenic-debris flows on the Bear Island Fan – implications for the growth and decay of the Barents Sea Ice Sheet**

E. Pope, P. Talling, J. Hunt, J. Dowdeswell

12:20-12:40 **Characteristics of submarine eskers observed at Ingøydjupet, SW Barents Sea using results of high resolution seismic and bathymetric mapping**

S. Chand, T. Thorsnes, A. Lepland, H. Brunstad

12:40-13:00 **New chronological constraints on the deglaciation of northernmost and southernmost Norway based on in-situ cosmogenic nuclides**

O. Fredin, N. Akçar, A. Romundset, R. Reber, S. Ivy-Ochs, P. Kubik, D. Tikhomirov, M. Christl, F. Høgaas, C. Schlüchter

13:00-14:00 LUNCH

SESSION 3

- 14:00-14:20 **Mega deposits and erosive features related to the glacial lake Nedre Glomsjø outburst flood, southeastern Norway**
F. Høgaas, O. Longva
- 14:20-14:40 **Preliminary results from a comprehensive isolation basin study at the south coast of Norway**
A. Romundset, F. Høgaas, T. Lakeman, O. Fredin
- 14:40-15:00 **Fast but short-lived retreats and long-lived halts or re-advances of the western margin of the Scandinavian Ice Sheet**
J. Mangerud, J.I. Svendsen, A.L.C. Hughes
- 15:00-15:30 COFFEE BREAK

SESSION 4

- 15:30-15:50 **Geophysical investigation of the western North Sea**
E. Grimoldi, D. Roberts, D. Evans, H. Stewart
- 15:50-16:10 **Modelling the advance and demise of the Late Weichselian ice-sheet complex across northern Eurasia**
H. Patton, K. Andreassen, A. Auriac, M. Winsborrow, A. Hubbard

POSTER SESSION 1

- 16:10-16:40 **Oral Poster Summaries**
Various
- 16:40-18:00 **Poster Session 1**

WEDNESDAY, MAY 25

FIELD EXCURSION

- 09:00-17:00 *Pick-up/Drop-off: Thon Hotel Gildevangen*

THURSDAY, MAY 26

INTRODUCTION

- 09:00-09:10 *L.R. Bjarnadóttir*

SESSION 5

- 09:10-09:30 **Pockmarks in the southwestern Barents Sea and Finnmark fjords**
R. Bøe, L. Rise, V.K. Bellec, S. Chand
- 09:30-09:50 **Dating the collapse of the Scandinavian Ice Sheet using CH₄-derived carbonate crusts from the Barents and Norwegian Seas**
A. Lepland, A. Cremiere, D. Sahy, S.R. Noble, D.J. Condon, S. Chand, H. Brunstad, T. Thorsnes
- 09:50-10:10 **How are large (>400 km³) submarine landslides related to the growth and decay of Arctic ice sheets?**
P. Talling, C. Watts, A. Mozzato, J. Allin, S. Bondevik, H. Haflidason, D. Tappin, E. Pope, J. Hunt, M. Cartigny, J. Dowdeswell, D. Long, N. Baeten, J. Stanford
- 10:10-10:30 **The glacial history of an active volcanic island - Jan Mayen**
A. Lyså, E. Larsen, N. Akçar, J. Anjar, S. Björk, M. Ludvigsen

10:30-10:50 **Deglaciation of a major palaeo-ice stream in Disko Trough, West Greenland**
K.A. Hogan, C. Ó Cofaigh, A.E. Jennings, J.A. Dowdeswell, J.F. Hiemstra

10:50-11:20 COFFEE BREAK

SESSION 6

11:20-11:40 **Wisconsinan Glacial Dynamics of Cumberland Peninsula, Baffin Island, Arctic Canada**

A. Margreth, J.C. Gosse, A.S. Dyke

11:40-12:00 **Deglaciating the western Canadian Arctic: linking terrestrial and marine records of retreating ice margins and catastrophic ice shelf behaviour**

M.F.A. Furze, A.J. Pieńkowski, K.A. Nichols, M.S.R. Esteves, A. Garrett, R. Bennett, E. King, A.G. Cage

12:00-12:20 **Deposition of widespread ice-rafted debris at the Allerød-Younger Dryas transition by the Amundsen Gulf Ice Stream, Canadian Arctic Archipelago**

T.R. Lakeman, A.J. Pienkowski, F.C. Nixon, M.F.A. Furze, S. Blasco, J.T. Andrews

12:20-12:40 **An 11,000-year record of driftwood delivery to the western Canadian High Arctic: implications for oceanic-atmospheric circulation, local sea-ice severity & RSL rise**

F.C. Nixon, J.H. England

12:40-13:00 **Postglacial environmental succession of Nettilling Lake (Baffin Island, Canadian Arctic) focusing on paleo-salinity changes inferred from diatom silica ($\delta^{18}\text{O}_{\text{diatom}}$).**

H. Meyer, B. Narancic, B. Chapligin, R. Pienitz

13:00-14:00 LUNCH

SESSION 7

14:00-14:30 **KEYNOTE: Deglacial sea-level history of the western Arctic Ocean**

T. Cronin, M. Jakobsson, N. Barrientos, M. O'Regan, F. Muschitiello, J. Backman, A. Koshurnikov, C. Pearce, L. Gemery, M. Toomey

14:30-14:50 **Paleoenvironmental variability in the western Bering Sea during the last deglaciation**

E.A. Ovsepyan, E.V. Ivanova, E.V. Dorokhova, D. Nürnberg, L. Max, R. Tiedemann

14:50-15:10 **Planktonic foraminifera (*Neogloboquadrina pachyderma*) signal Atlantic-sourced water inflow in the early Holocene Northwest Passage**

A.J. Pienkowski, A.G. Cage, M.F.A. Furze, A.S. de Figueiredo Martins, J. England, B. MacLean, S. Blasco

15:10-15:30 **Changes of sea-ice cover on the East Greenland Shelf (73°N) over the last 5200 years – a biomarker reconstruction**

H. Kolling, R. Stein, K. Fahl, K. Perner, M. Moros

15:30-15:50 COFFEE BREAK

SESSION 8

15:50-16:10 **Trondheimsfjord sediments reveal North Atlantic Oscillation dynamics of the past 2800 years**

J.C. Faust, K. Fabian, J. Giraudeau, J. Knies

16:10-16:30 **Ancient environmental DNA: a paleoceanographer's perspective**

J. Pawłowska, F. Lejzerowicz, M. Łącka, M. Zajączkowski, J. Pawłowski

16:30-16:40 **Kongsberg Maritime Presentation**

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POSTER SESSION 2

16:40-17:10 **Oral Poster Summaries**

Various

17:10-18:30 **Poster Session 2**

CONFERENCE DINNER

18:30-21:30 *Location: Geological Survey of Norway, Leiv Eirikssons vei 39, Trondheim*

FRIDAY, MAY 27

INTRODUCTION

09:20-09:30 *L.R. Bjarnadóttir*

SESSION 9

09:30-10:00 **KEYNOTE: The puzzle of grounded Pleistocene ice in the Arctic Ocean and the exhumation of Miocene sediments**

F. Niessen, R. Stein, L. Jensen, M. Schreck, J. Matthiessen, K. Fahl, M. Forwick, C. Gebhardt, M. Kaminski, G. Knorr, I. Sauermilch, W. Jokat, G. Lohmann, J. Kuk Hong, L. Polyak, S.-I. Nam

10:00-10:20 **A pan-Arctic ice shelf during late Marine Isotope Stage (MIS) 6: Fact or fiction?**

J. Knies, R. Spielhagen

10:20-10:40 **Siberian glacial impacts on the Arctic Ocean: a case study of the Middle Weichselian glaciation**

L. Polyak, F. Niessen, S.-I. Nam, M. Schreck, G. Dipre, J. Ortiz, R. Spielhagen

10:40-11:00 **Nutrient Utilization in the Northern Polar Ocean and its Relation to Present and Past Warm Climate Conditions**

H. Bauch, B. Thibodeau, T.F. Pedersen

11:00-11:30

COFFEE BREAK

SESSION 10

11:30-11:50 **Emergence of the modern Nordic Seas circulation in the Early Pliocene related to ocean gateway changes**

S. De Schepper, M. Schrek, K.M. Beck, J. Matthiessen, K. Fahl, G. Mangerud

11:50-12:10 **North Atlantic water influence and sea surface water warming during the late Pliocene in the marginal Arctic Ocean (Site 911A, Yermak Plateau)**

K. Grøsfjeld, S. De Schepper, J. Knies

12:10-12:30 **Glacial and climate history in the Polar Urals, Russian Arctic**

J.I. Svendsen, H. Hafliðason

12:30-12:50 **Revision of the Late Quaternary Lake El'gygytgyn level fluctuations**

G. Fedorov, A.A. Andreev, E. Raschke, V. Wennrich, M. Melles

CONCLUDING REMARKS

12:50-13:00 *L.R. Bjarnadóttir & C. Ó Cofaigh*

13:00-14:00

LUNCH

POSTER PRESENTATIONS

POSTER SESSION 1 - TUESDAY, MAY 24

Combining terrestrial and marine glacial archives – a geomorphological map of Nordenskiöldbreen forefield, Svalbard

L. Allaart, N. Friis, Ó. Ingólfsson, A. Schomacker, L. Håkansson, R. Noormets

Mass movements on the SW Barents Sea margin - preliminary results

N.J. Baeten, J. Knies, L. Rise, V. Bellec, S. Chand, R. Bøe

Bioclastic sediments and cold-water coral reefs in the Norwegian Sea - Links between glacial landforms and reef ecosystems

V. Bellec, T. Thorsnes, R. Bøe, L.R. Bjarnadóttir

Glacial dynamics in Mohnbukta east Spitsbergen inferred from the submarine landform record

A.E. Flink, R. Noormets, P. Hill, N. Kirchner

Morphology and sedimentary processes on the continental shelf edge and slope north of Nordaustlandet, Svalbard

O. Fransner, R. Noormets, A.E. Flink, K.A. Hogan, J.A. Dowdeswell

Event stratigraphic interpretation of high-resolution, marine seismic data from Leirfjorden, North Norway.

L. Hansen, R. Bøe

A shear-wave, reflection seismic study of the fjord-valley fill below urban ground in Trondheim, Mid Norway

L. Hansen, J.S. L'Heureux, G. Sauvin, U. Polom, I. Lecomte, M. Vanneste, O. Longva, C.M. Krawczyk

DATED-2: updating the Eurasian Ice sheet chronology and time-slice reconstructions

A.L.C. Hughes, R. Gyllencreutz, J. Mangerud, J.I. Svendsen

Thermogenic origin of hydrocarbon seeps in central Spitsbergen fjords, Svalbard

M. Liira, R. Noormets

Age of the Younger Dryas ice-marginal substages in Mid-Norway – Tautra and Hoklingen, based on a compilation of 14C-dates

L. Olsen, F. Høgaas, H. Sveian

Sea-floor morphology and sedimentary processes along the Norwegian Channel Ice Stream

D. Ottesen, C.R. Stokes, R. Bøe, L. Rise, O. Longva, T. Thorsnes, O. Olesen, T. Bugge, A. Lepland, O. B. Hestvik

Modeling the post-LGM deglaciation of the Scandinavian-Barents Sea Ice Sheet; a model intercomparison approach

M. Petrini, N. Kirchner, F. Colleoni, A. Camerlenghi, M. Rebesco, R. Lucchi, R. Noormets, E. Forte

Geological and Geomorphologic Features of the Area of the Kandalaksha Gulf (White Sea, Russia) as Formed by Deglaciation and Neotectonic Movements

M.A. Romanovskaya, N.I. Kosevich, D.D. Movchan

Downslope and alongslope sedimentary processes on a high latitude continental margin: NW Barents Sea

L. Ruj, M. Rebesco, A. Caburlotto, J.L. Casamor, R. Lucchi, A. Camerlenghi, R. Urgeles, K. Andreassen, T. Hanebuth, A. Ozmaral, D. Accettella

POSTER SESSION 2 - THURSDAY, MAY 26

Palynological results from the Lake Ladoga postglacial-glacial-preglacial sediment record

A.A. Andreev, L.A. Savelieva, L. Shumilovskikh, R. Gromig, V. Wennrich, G. Fedorov, D.A. Subetto, S. Krastel, B. Wagner, M. Melles

Ocean forcing of the Greenland Ice Sheet on centennial time scales

C.S. Andresen, L.M. Dyke, U. Kokfelt, F. Vermassen, D. Wangner, M.-S. Seidenkrantz

Dating the glacial activity on Jan Mayen using cosmogenic surface exposure dating with ³⁶Cl

J. Anjar, N. Akçar, E. Larsen, A. Lyså, C. Vockenhuber

Reconstruction of Late Quaternary paleoceanographic settings in the central Arctic Ocean: Insights from study of ice-rafted debris composition

E. Bazhenova, A. Kudriavtseva, E. Voronovich, A. Krylov, R. Stein

Late Quaternary deglaciation in the Arctic Ocean: evidences from microfossils

K. Carbonara, K. Mezgec, G. Varagona, M.E. Musco, R.G. Lucchi, G. Villa, R. Melis, C. Morigi

Holocene variation in the onset of the Neoglacial cooling off eastern Greenland from Fram Strait to Cape Farewell

C. Dylmer, M. Miles

A new infrastructure for the paleoclimatic community: A fully automated 2G SQUID cryogenic magnetometer at the Geological Survey of Norway

K. Fabian, M. Klug, J. Knies

Reconstructing Little Ice Age sea surface temperatures in Sermilik Fjord, SE Greenland

U. Kokfelt, C.S. Andresen, M.-A. Sicre, V. Klein, F. Kaczmar, L.M. Dyke, F. Vermassen, D. Wangner

Development of proxy methods for past climate reconstruction in the Barents Sea

D. Koseoglu, S.T. Bell, J. Knies

Alkenone-based reconstruction of sea surface conditions since last glacial times off SW Svalbard

M. Łącka, M. Cao, A. Rosell-Melé, J. Pawłowska, M. Kucharska, M. Forwick, M. Zajączkowski

Paleoenvironmental reconstruction of Postglacial and Holocene events in the eastern Fram Strait inferred from benthic microfossils and IRD data

Y. Ovsepyan, E. Taldenkova, N. Chistyakova, A. Stepanova, R.F. Spielhagen, K. Werner, J. Müller

Lake Nordlaguna, Jan Mayen: the potential for a palaeoclimate record from the island

E. Larsen^{1,2}, A. Lyså¹, J. Anjar² and M. Ludvigsen³

Size matters: the response of foraminifera test size to changing climate

J. Pawłowska, M. Łącka, N. Szymańska, M. Kucharska, A. Kujawa, M. Zajączkowski

The Greenland Ice Sheet during the Last Interglacial: Coupling ice and atmosphere

A. Plach, K.H. Nisancioglu

Late Holocene land-sea interactions and coastal environments in the Laptev Sea region as revealed from pollen and non-pollen palynomorphs (NPP) spectra in marine sediment cores

O. Rudenko, H.A. Bauch, V. Yenina

Variability of water masses and ice coverage in the last 200 ky on the western Lomonosov Ridge

R. Spielhagen, R. Stein, A. Mackensen

Benthic foraminifera for the study of the deglaciation post LGM in the south-western Svalbard slope (Arctic Ocean)

G. Varagona, R. Melis, C. Morigi, M.E. Musco, R.G. Lucchi, K. Mezgec, K. Carbonara, Giuliana Villa