

Joint CEED/BCCR workshop on the impact of ocean bathymetry on ocean circulation and climate

Geilo, 21-22nd of January 2016

To kick-off the newly established collaborative project on “Climate, Volcanism, and Tectonics” between the Centre for Earth Evolution and Dynamics and the paleoclimate modeling group at the Bjerknes Centre for Climate Research we wish to invite to a joint workshop at Geilo. The main aim will be to discuss the potential role of bathymetry on ocean circulation in the causes and nature of extreme climates of the geologic past, and compare these to other possible forcing mechanism such as volcanism.

One main target will be to understand the role of changes to the Greenland-Iceland-Scotland ridge on Atlantic circulation and climate through the Cenozoic.

To achieve this aim we have invited a number of scientists with a diverse background including physical oceanography, atmospheric dynamics, climate modeling, geology, and geophysics.



PROGRAM

Thursday 21st of January

Arrival Geilo by train from Bergen and Oslo (for train times see www.nsb.no).

Workshop venue: Dr. Holms hotel (<http://www.drholms.no>)

12:30 - 14:00 Lunch at Dr. Holms

14:00 - 14:30 Introduction and presentation of participants (Kerim/Carmen)

14:30 David Ferreira: “*localization of deep convection by geometrical constraints*”
(20min)

15:00 Joe LaCasce: “*The thermally-forced ocean circulation*” (10min)

15:15 Ada Gjermundsen: “*The thermally-forced circulation with bathymetry*” (10min)

15:30 - 16:00 Coffee break and discussion

16:00 Carmen Gaina: “*Plate tectonics, (paleo) oceans and climate*” (10min)

16:15 Eivind Straume: “*Paleobathymetry of the NE Atlantic Ocean*” (10min)

16:30 Kjetil Våge: “*Overtuning in the western Nordic Seas*” (10min)

16:45 Kerim Hestnes Nisancioglu: “*Modeling the impact of bathymetry on ocean circulation*” (10min)

17:00 Discussion

18:00 - 20:00 Dinner at Dr. Holms

(20.00 Ice Music Festival opening concert – Geilo center, tickets at <http://www.icemusicfestival.no/>)

Friday 22nd of January

07:00 – 09:00 Breakfast

09:00 Stephen Jones: “*The Greenland-Iceland-Scotland Ridge oceanic gateway: Detailed vertical motions through the Cenozoic, and possible links to climate change events*” (20min)

09:30 Zhongshi Zhang: “*Climate impacts caused by Greenland-Scotland Ridge during the Pliocene* ” (10min)

09:45 Mari Fjalstad Jensen: “*The effect of sill depth in an idealized set-up with the MIT gcm*” (10min)

10:00 – 11:00 Discussion with Coffee

11:00 Henrik Svensen: “*The relationship between the North East Atlantic Volcanic Province and the PETM*” (10min)

11:15 Frode Stordal: “*Global temperature response to century-scale degassing from the Siberian Traps Large Igneous Province: A simple global box model study*” (10min)

11:30 - 14:30 Lunch and time for skiing

14:30 Discussion: “What is impact of changes to the Greenland-Scotland ridge on ocean circulation and climate?” chaired by Kerim Hestnes Nisancioglu

16:00 Coffee break

16:30 Discussion and Summary: “Is there a role for bathymetry and ocean circulation in explaining changes in mass extinction events of the past?” chaired by Carmen Gaina

18:00 Departure for participants taking the evening train back to Bergen/Oslo

(20.00 Ice Music Festival concert: “**Flower Power With African Ice & Groove**”, Geilo center, tickets at <http://www.icemusicfestival.no/>)

PARTICIPANTS

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