



## **NKG Working Group of Geodynamics and Earth Observation (WGGE0)**

### **Agenda for the meeting in Lyngby, Denmark March 11-12, 2019**

In case of practical problems contact the local organisers

Rene Forsberg at +45-2540-2775 or Gabriel Strykowski +45-4525-9715.

**The meeting will take place at DTU Space, Building 202, meeting room Ly202-R8003**

#### **Monday 11 March**

12.00 – 13.00 Lunch in the canteen attached to Building 202 (**on own costs, ca. 40-50 DKK**)

#### **Introduction**

13.00 Meeting starts at DTU Space, Building 202, meeting room Ly202-R8003

13.00 – 13.30 Welcome

- Approval of the agenda
- Minutes from the last meeting (Helsinki 2018)
- Appointment of secretary
- Participants of dinner Monday evening
- Introduction by the chair, input from the NKG presidium

#### **InSAR**

13.30 – 14.00 John Merryman (invited): “A top-down introduction to Spaceborne Synthetic Aperture Radar Interferometry”

14.00 – 14.15 Joanna Balasis-Levinsen (invited): “Building a national InSAR infrastructure”

14.15 – 14.30 Hans-Georg Scherneck (invited): “Inference of surface deformation along a central section of the Pärvie fault, Swedish Lapland, and at the Kiruna mine using InSAR”

14.30 – 15.15 Discussion

*14.30 – 14.35* Halfdan Pascal Kierulf: “InSAR plans at Kartverket and one slide about DRF”

*14.35 – 14.40* Faramarz Nilfouroushan, Jonas Ågren, Martin Lidberg: “Some remarks on InSAR in Sweden”



# NORDISKA KOMMISSIONEN FÖR GEODESI

- InSAR plans at national authorities in NKG
- NKG's DRF project and InSAR
- Geodetic SAR project
- NKG coordination needed?
- WGGeo as annual forum?
- Start of a new NKG study group?

15.15 – 15.35

*Coffee and tea*

## **National reports**

15.35 – 17.30

National/Institutional reports (10 minutes per country except host country)

- Norway
- Lithuania
- Iceland
- Sweden (Lantmäteriet + OSO)
- Finland
- Denmark
- Estonia
- Latvia

19.00 –

Social dinner at Restaurant (Wagamama, Solbjergvej 3, Frederiksberg, **on own costs**)

## **Tuesday 12 March**

### **Glacial Isostatic Adjustment**

8:30 – 8:45

Maaria Nordman: "Land uplift on High Coast and Kvarken archipelago"

8:45 – 9:15

Discussion

8:45 – 8:55

Holger Steffen: "NKG2022GIA activity status March 2019"

- Coordination of the NKG2022GIA activity

### **Gravimetry**

9:15 – 9:30

Hans-Georg Scherneck, Marcin Rajner, Maxime Mouyen: "Superconducting and Absolute Gravimetry: Reprocessing of the multi-campaign adjustment 2009-2017 --- and obstacles for adding 2018"

9:30 – 9:45

Maxime Mouyen, Hans-Georg Scherneck, Marcin Rajner: "Investigation of hydrological effects at the superconducting gravimetry site of Onsala"



# NORDISKA KOMMISSIONEN FÖR GEODESI

- 9.45 – 10.25 Discussion
- 9.45 – 9.55 Mirjam Bilker-Koivula: “Status of the Finnish AG paper”
- 9.55 – 10.05 Per-Anders Olsson: “The absolute gravity project – status and next steps”
- Data to/in AGrav
  - AG data after 2015
  - IGRF/IGRS
  - Research projects (e.g. regarding hydrology), a NKG study group?
- 10.25 – 10.45 *Coffee and tea*
- 10.45 – 11.15 Discussion (cont.)
- 10.45 – 10.55 Hannu Ruotsalainen (given by Mirjam Bilker-Koivula): “Status and views on the land uplift gravity lines”
- Data situation
  - Publication plans
  - Coordination/help needed?
- Dynamic Reference Frame**
- 11:15 – 11:30 Rebekka Steffen, Juliette Legrand, Holger Steffen, Martin Lidberg, Ambrus Kenyeres, Elmar Brockmann, Simon Lutz: “Deformation model for Europe: Application of the least-square collocation”
- 11:30 – 11:45 Diana Haritonova: “The impact of the Baltic Sea loading on GNSS station coordinate time series in the territory of Latvia”
- 11:45 – 11:55 Business Matters
- Status of the NKG website
  - Email list/Mailing list
  - SCAR-SERCE/POLENET 2019 GIA Training School, Lantmäteriet Gävle, Sweden
  - AOB
- 11.55 – 12.00 Closing of the meeting, next meeting(s)
- Iceland or Sweden? Can also be discussed Wednesday in WGFHSG



## **NKG Working Group of Future Height Systems and Geoid (WGFHSG)**

### **Agenda for the meeting in Lyngby, Denmark March 12-13, 2019**

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Rene Forsberg at +45-2540-2775 or Gabriel Strykowski +45-4525-9715.

**The meeting will take place at DTU Space, Building 202, meeting room Ly202-R8003**

#### **Tuesday 12 March**

- 12.00 – 13.00 Lunch in the canteen attached to Building 202 (**on own costs, ca. 40-50 DKK**)
- Introduction**
- 13.00 Meeting starts at DTU Space, Building 202, meeting room Ly202-R8003
- 13.00 – 13.15 Welcome
- Approval of the agenda
  - Minutes from the last meeting (Helsinki 2018)
  - Appointment of secretary
  - Introduction by the chair, input from the NKG presidium
- Scientific presentation (20 min talks)**
- 13:15 – 13:35 Per Anders Olsson “Marine and airborne gravity measurements with the Swedish gravimeter, ZLS-D13”
- 13:35 – 13:55 Thomas Hammarklint: “A common reference datum for nautical charts and water level information in the Baltic Sea”
- 13:55 – 14:15 Olav Vestøl: “Variation of sea level in a Norwegian fjord”
- 14:15 – 14:30 *Coffee and tea*
- 14:30 – 14:50 Sander Varbla, Artu Ellmann: “Assessment of marine geoid models by ALS profiles in the Gulf of Finland, the Baltic Sea”
- 14:50 – 15:10 Jonas Ågren: “Status and latest results regarding gravity and geoid in the FAMOS project”
- 15:10 – 15:30 Timo Saari, Mirjam Bilker-Koivula, Hannu Koivula, Jaakko Kuokkanen Sonja Lahtinen, Pasi Häkli: “FAMOS Odin: Geoid model validation in the Gulf of Finland using GNSS-derived geoid heights”



## **Business matters**

15:30 – 15:45 Jonas Ågren: “Status regarding the realization of the International Height Reference System”

## **Discussion**

15:45 – 16:00 Final wrap-up before delivery of NKG2015 gravity database (minus Polish and German data) to NGA (for EGM2020)

16:00 – 16:20 NKG gravity database

- Update with brand new Lithuanian data
- Relation between the FAMOS and NKG gravity databases
- Permission issues

16:20 – 17:00 WGFHSG the next four periods - introduction to discussion

19:00 – Social dinner at Tony’s (Havnegade 47, Copenhagen)

## **Wednesday 13 March**

### **Discussion**

08:30 – 09:45 Future work / Projects

- What about empirical land uplift modelling in the WGFHSG?
- Apparent land uplift model
- Error field of geoid (Error propagation in geoid determination)
- Projects or study areas?

09:45 – 10:00 *Coffee and tea*

### **National reports**

10:00 – 11:30 National/Institutional reports (10 minutes per country)

- Iceland
- Lithuania
- Latvia
- Estland
- Danmark
- Finland
- Sweden
- Norway

11:30 – 12:00 Wrap up and next meeting