



NordQuake Training Course 2012 on Analysis of local earthquake data University of Bergen, Norway 11-15 June 2012

The course will focus on the analysis and interpretation of local earthquake data. The main topics will include signal processing in observational seismology, earthquake location, magnitude calculation, fault plane solution, moment tensor inversion and spectral analysis. Each day will start with presentations related to the current topic by the lecturers or participants. However, other work or topics can also be presented. The participants will mostly work with earthquake data to get hands on experience. The main software used will be SEISAN.

There will be three types of sessions: 1) lectures, 2) talks by participants and 3) working sessions. A large proportion of the time will be spent in the working sessions with a content which to a large extent will be decided by the participants. During the working sessions we will probably form groups that work on specific topics using the participant's data.

Venue and Contact phone numbers in Bergen

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Realfagbygget

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NordQuake website: <http://nordquake.net/>

NordQuake is a researcher network funded by:



norden

NordForsk

Talks program

The time for each talk is about 15 minutes including questions.

Monday afternoon 11/6:

Andreas Köhler	In search of Icequakes on Svalbard
Ilma Janutyte	Introduction to the PASSEQ project and seismicity of Lithuania
Johan Skott	Kiruna mining seismicity

Tuesday morning 12/6:

Babak Hejrani	Upper mantle P-wave tomography: comparison between Southern and Northern Caledonides
Paivi Mantyniemi	Macroseismic studies of historical earthquakes in the Fennoscandian Shield

Tuesday afternoon 12/6:

Randi Karin Tveit	Seismic hazard in Bergen due to a M6 earthquake along the Øygarden Fault Zone
Christian Schiffer	Geophysical investigation of the East Greenland Caledonides

Wednesday morning 13/6:

Emilia Ndemuweda	Present and future research
Ingi Þ. Bjarnason	Included seismicity

Wednesday afternoon 13/6:

Andrea Tesoniero	<u>3D elastic focusing effects in the Los Angeles Basin upon the Northridge earthquake</u>
Martin Hensch	Moment and Stress Tensor Inversion of Volcanic Earthquakes in Iceland: Constraints on Magmatic Processes

Program

Time	Monday 11	Tuesday 12	Wednesday 13	Thursday 14	Friday 15
09:00-10:30	10:00- Lars: Registrtration Tour of the institute Introduction to SEISAN	Lars: 2 Talks by participants Lecture: Phase reading, location and magnitudes	Jens: 2 Talks by participants Fault plane solution and moment tensor inversion	Jens/Lars: Talks by participants Lecture: Data handling, data quality	Working session
Coffee Break					
11:00-12:30	Peter: Discuss program and decide on working session content and NordQuake Practical arrangements. Installation of software .	Working session	Working session	Working session	Working session
Lunch Break					Lars: Closing
13:30-14:00	Lars: Introduction to basic SEISAN training:	Peter: 2 Talks by participants	Lars: 2 Talks by participants Seisan_Explorer Working session	Jens: Lecture: to be decided e.g Earthquake spectra and source parameters	
14:00-15:00	Working session	Peter: Instrument response	Working session	Working session	
Coffee Break					
15:30-17:00	Jens: 3 Talks by participants Working session	Working session	16:00- City Tour – weather dependent	Working session	

List of Participants

1. Andreas Köhler, University of Oslo, Norway
2. Martin Hensch, Icelandic Meteorological Office, Iceland
3. Emilia Ndemuweda, Luleå University, Sweden
4. Ilma Janutyte, University of Vilnius and Lithuanian Geological Survey, Lithuania
5. Andrea Tesoniero, University of Copenhagen, Denmark
6. Päivi Mäntyniemi, University of Helsinki, Finland
7. Christian Schiffer, University of Aarhus, Denmark
8. Babak Hejrani, University of Aarhus, Denmark
9. Johan Skott, Luleå University, Sweden
10. Ingi Bjarnason, University of Iceland, Iceland
11. Randi Karin Tveit, University of Bergen, Norway

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