



Program GeoEnergi2017

Location: *Christian Michelsen Research
Fantoftvegen 38
Bergen*

Monday May 22nd (*English main language*)

08:30 – 09:00 Registration and Coffee

09:00 - 09:10 **Welcome**
Inga Berre, CGER

Session 1: New opportunities for the oil and gas industry

Chair: Ranveig N. Bjørk, CGER

9:10 – 09:50 **Recent updates from the world's hottest geothermal energy drilling**
Guðmundur Ómar Friðleifsson, HS Orka

09:50 - 10:30 **How O&G know-how can leverage the geothermal industry**
Carsten Sørli, Statoil

10:30 – 11:00 **Coffee break**

11:00 - 11:20 **Concepts & Technology from O&G opens for 100 geothermal wells in Copenhagen**
Ole Jacob Sandal, Geotermisk Operatørselskab

11:20 - 11:40 **New technical, efficient and economical solution for geothermal drilling**
Jan Atle Andresen, Huisman

11:40 - 12:00 **Long reach wellbores in hard rock formations by fluid powered high frequency percussion**
Per A. Vatne, Hammergy

12:00 – 12:20 **Electronics in extreme conditions. From oil and gas to geothermal**
Magnus Hjelstuen, SINTEF

12:20 - 13:00 **Panel discussion**
Chair: Hanne Wigum, Statoil
Technology discussion. International opportunities. Restructuring opportunities for the oil and gas industry.

13:00 – 14:00 **Lunch**



Session 2: Research snapshots

Chair: Erlend Randeberg, IRIS

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| 14:00 – 14:10 | GEMex: Europe-Mexico collaboration for development of Enhanced Geothermal Systems and Superhot Geothermal Systems
<i>Walter Wheeler, Uni Research</i> |
| 14:10 – 14:20 | Raising the standard of well integrity for high-temperature geothermal wells
<i>Mohammad Mansouri, IRIS</i> |
| 14:20 – 14:30 | Technology platform for research-based innovations in deep geothermal drilling: From the Lab to the Field
<i>Pascal-Alexandre Kane, SINTEF</i> |
| 14:30 – 14:40 | HotCaSe – Casing systems for high-temperature geothermal wells
<i>Sturla Sæther, Statoil</i> |
| 14:40 – 14:50 | Enhancing Geothermal Reservoirs - Hydraulic and Thermal Stimulation Technology
<i>Volker Oye, NORSAR</i> |
| 14:50 – 15:00 | Laboratory Studies of Geothermal Tracers at Supercritical Conditions
<i>Jiri Muller, IFE</i> |
| 15:00 – 15:10 | Geopolymers as an alternative to Portland cement for high temperature wells
<i>Mahmoud Khalifeh, University of Stavanger</i> |
| 15:10 – 15:20 | Optimal resource utilization of groundwater for heating and cooling in Melhus and Elverum
<i>Randi Ramstad, NTNU</i> |
| 15:20 – 15:30 | Integrated heating and cooling system for hospital buildings with the goal of minimal gross energy use
<i>Thorgeir Harsem, Norconsult</i> |
| 15:30 – 16:00 | Coffee break |

Session 3: PhD session

Chair: Carsten Sørli, Statoil

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| 16:00 - 17:00 | Coupled processes in geothermal reservoirs
<i>Ivar Stefansson, University of Bergen</i> |
| | Structural impact of fractures on dynamic processes in geothermal reservoirs
<i>Runar Berge, University of Bergen</i> |
| | Understanding the stimulation of deep geothermal reservoirs through modeling and simulation
<i>Eren Ucar, University of Bergen</i> |



Optimal utilization of groundwater for heating and cooling in Melhus and Elverum
Sondre Gjengedal, NTNU

Non-Isothermal Coupling of Free Flow and Porous Media Flow
Ingeborg Gjerde, University of Bergen

Upscaling of flow, mechanics, and geochemistry
Mats Brun, University of Bergen

Solving Large-Scale Problems in Science
Ana Budisa, University of Bergen

StoRM - new software for sedimentary rock property modelling. Application in geology and geothermal exploration
Krzysztof Jan Zieba, NTNU

Modeling of high temperature, high pressure geothermal energy production system
Silje Bordvik, NTNU / Sturla Sæther, Statoil

17:00 – 17:40 Posters

19:30 Middag på BOHA restaurant
Vaskerelven 6, Bergen

Tirsdag 23. mai (nordisk som hovedspråk)

8:45 – 9:00 **Velkommen**
Julie Andersland, Byråd for klima, kultur og næring

Sesjon 1: Grunne geotermiske energisystemer

Ordstyrer: Randi Kalskin Ramstad, NTNU

9:00 – 09:30 **Fordeler og utfordringer med dype energibrønner**
Nils Hanstad, Båsum boring

09:30 - 10:00 **Fra oljeboringsteknologi til senkeboring for fundamentering og geotermi - kosteffektiv dyphullsborings med konvensjonelle rigger**
Kjell Arild Grønås, Qmatec drilling

10:00 - 10:30 **Boresimulator på nett - OpenLab Drilling**
Helga Gjeraldstveit, IRIS

10:30 – 11:00 Kaffepause med noe å bite i



- 11:00 - 11:20 **Dimensjonering av varme- og kjøleanlegg, Scandic Airport Flesland**
Henrik Holmberg, Asplan Viak og Ove Sivertsen, Fondenæs Rørlegger
- 11:20 – 11:40 **Energiboring i Norge – bransjen, trender og utvikling**
Einar Østhassel, Maskinentreprenørenes Forbund, brønnboreavdelingen
- 11:40 – 12:00 **Strategisk innovasjonsagenda for geoenergi i Sverige**
Johan Barth, Svenskt Geoenergicentrum

Sesjon 2: Nasjonale muligheter for vekst innen geotermisk energi

Ordstyrer: Inga Berre, CGER

- 12:00 – 13:00 **Paneldiskusjon**
Diskusjon om Norges rolle innen forskning, utvikling og bruk av teknologiløsninger for grunnvarme og geotermisk energi
- Paneldeltakere**
Marit Dolmen, RD&I Manager GCE NODE
Kristin Flornes, Senior Vice President, Energy Management IRIS
Thor-Erik Musæus, styrerepresentant European Geothermal Energy Council
Einar Østhassel, fagsjef boring og brønn, Maskinentreprenørenes Forbund
Johan Barth, Svenskt Geoenergicentrum
- 13:00 Avslutning GeoEnergi2017
- 13:00 – 13:30 Lunsj i farten
- 13:30 – 14:30 Generalforsamling CGER
Deltakelse kun for CGER partnere