

Tuesday, 12th September

Grosser Saal

- 11:30 - 13:15 Registration
- 13:15 - 13:30 Welcome
- 13:30 - 14:00 Keynote Talk
Drilling Technology for Super Hot Geothermal Wells
Stephen Pink, Vice President Subsurface Energy Technologies, NOV
- 14:00 - 14:30 Keynote Talk
Moving geothermal projects from design to commercial success
Ajit Menon, Vice President of Geothermal, Baker Hughes
- 14:30 - 15:00 Coffee Break & Networking

Grosser Saal: Session 1 "Drilling Technology"

Celler Saal: Session 2 "Hard Rock Drilling"

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| <p>15:00 - 15:30 Directional Drilling Challenges in delivering Advanced Geothermal Wells
 <i>Ross Lowdon (SLB)</i></p> <p>15:30 - 16:00 Analysis of the Interaction Between High-Frequency Torsional Oscillations and Bit-Whirl in Drilling Systems
 <i>Kai Glowatzki (Baker Hughes)</i></p> | <p>Development and final testing of a hydraulic, drill mud compatible DTH percussion hammer for deep, hard rock drilling applications
 <i>Volker Wittig (Fraunhofer IEG)</i></p> <p>The TU Clausthal Mud Hammer Project – Current Development Status
 <i>Michel Bannenberg (Clausthal University of Technology)</i></p> |
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16:00 - 16:30 Coffee Break & Networking

Grosser Saal: Session 3 "Drilling Technology"

Celler Saal: Session 4 "Hard Rock Drilling / Modelling"

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| <p>16:30 - 17:00 Development and analysis of a scalable and universally applicable concept for decentralized control using the example of a miniaturized drilling rig
 <i>Charalampos Soilemezidis (Clausthal University of Technology)</i></p> <p>17:00 - 17:30 Radial Drilling Technology for Production Optimization
 <i>Hamad Almebayedh (Kuwait Oil Company)</i></p> <p>17:30 - 18:00 Innovative wellbore connectivity enhancement technologies in deep geothermal type reservoirs
 <i>Berker Polat (Fraunhofer IEG)</i></p> | <p>The GeoVolve Hammer - Percussion-Enhanced Drilling Technology
 <i>Edward Kerr (HydroVolve)</i></p> <p>Novel concepts to construct cost effective geothermal wells with Electro Pulse Power Technology
 <i>Erik Neumann (Technische Universität Dresden)</i></p> <p>Modelling of the dynamics of a drill string using measurements from a full scale testing facility
 <i>Patrick Höhn (Clausthal University of Technology)</i></p> |
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18:00 - 19:00 Networking

19:00 Conference Evening

Wednesday, 13th September

Grosser Saal: Session 5 "Digital Drilling"

Celler Saal: Session 6 "Downhole Tool Innovations"

09:00 - 09:30 **Reinforcement Learning-Based Drilling Trajectory Optimization for Automated Directional Drilling**
Ramez Abdalla (Clausthal University of Technology)

Wellbore Shape Characterization using Advanced LWD Ultrasonic Imaging Tools for Optimized Drilling and Completions Operations
Cory Langford (Scientific Drilling)

09:30 - 10:00 **Realistic automated scenario drilling through implementation and validation of physical and machine learning models using a real-time drilling simulator**
Harits Alkatiri (Clausthal University of Technology)

Cementitious Swell Packer, development and testing a new well integrity solution
Euan Murdoch (Aramco Overseas)

10:00 - 10:30 **Drilling into the Future: A Collaborative and Adaptable Platform for Stochastic Estimation**
Daria Krasova (AGR Software)

Avoiding High Local Doglegs by Integrating the Drill Bit Into the Rotary Steerable System
Matthias Hahn (Baker Hughes)

10:30 - 11:00 Coffee Break, Networking & ePosters

ePoster **Project-specific improvement of insurance covers for drilling risks: Construction All Risk - Lost in Hole – Liability** *Achim Fischer-Erdsiek (NW Assekuranz)*

Großer Saal: Session 7 "Heat and Mass Transfer"

Celler Saal: Session 8 "Geothermal Drilling Technology"

11:00 - 11:30 **Modeling of heat and mass transfer in geothermal systems for energy storage and extraction**
Shahab Mohammadi (Clausthal University of Technology)

How can Middle Deep Geothermal Wells (600 m - 2500 m) be drilled in half the time?
Arthur De Mull (Huisman)

11:30 - 12:00 **Simulation of cuttings transport in horizontal wells using high resolution numerical methods**
Hozan Ibrahim (Clausthal University of Technology)

Enabling (drilling) technology maturation for the energy transition: case studies
Vedran Zikovic (TNO)

12:00 - 12:30 **Simulation of Cuttings Transport While Vertical Drilling**
Yaroslav Ignatenko (Baker Hughes)

Integration Of Advanced Engineering & Drilling Techniques For Efficient Sidetracking Through Challenging Well Conditions
Mehdi Pourtangestani (SLB)

12:30 - 13:30 Lunch Break, Networking & ePosters

ePoster **Analysis of distributed temperature and acoustic data to assess cementing of a surface casing in a geothermal well.** *Berker Polat (Fraunhofer IEG)*

Großer Saal: Session 9 "Geothermal Technology"

Celler Saal: Session 10 "Instrumentation Technology"

13:30 - 14:00 **Specially Customized Systems for Cementing Geothermal Wells**
Nils Lummer (Fangmann Energy Services)

Development of a novel Tool Joint with sensors and data transfer capability for enhanced geothermal drilling - Design and first experimental evaluation
Andrea Bufalini (Rina Consulting)

14:00 - 14:30 **Geothermal energy in a closed system with underground heat exchanger - Case Study Geretsried**
Daniel Mölk (Eavor)

Reliable Leak Detection using Acoustic Noise Toll and Basic Cased Hole Logging
Maciej Kozłowski (Halliburton)

15:00 **Visit of Drilling Simulator Celle - Research Institute**
Please register for participation at Celle Drilling Registration Counter