



RUHR UNIVERSITY BOCHUM

RESEARCH DEPARTMENT

Subsurface Modeling & Engineering

RUB

WORKSHOP:

BOCHUM UNDERGROUND SPACE DAY 2017 – Subsurface & Energy

OCTOBER 25TH 2017

RUHR UNIVERSITY BOCHUM, IC 03 / 604
Universitätsstraße 150, 44801 Bochum

The “Bochum Underground Space Day” is dedicated to the **memory of Prof. Tom Schanz**, who deceased on October 12th 2017 unexpectedly.

This workshop is organized by the Research Department Subsurface Modeling and Engineering (RD SME) at Ruhr University Bochum as an annual workshop to exchange results of pertinent research and to foster cooperation within the RD as well as with external research institutions and companies.

This year the workshop will be devoted to the general topic “**Subsurface and Energy**”. It starts with two invited keynote lectures (Dr.-Ing. Diethard König, Ruhr University Bochum and Prof. Lyesse Laloui, EPFL Lausanne), followed by presentations from members of the RD and external institutions. During lunch break there will be a poster session open for all members of the RD to share their recent research.

After the workshop, a General Assembly of the RD SME will be held.



In Memoriam Prof. Tom Schanz

WORKSHOP PROGRAM – OCTOBER 25TH 2017 – 10:00 - 15:10

10:00 *Welcome*

10:15 **ON THE USE OF SALT CAVERNS FOR THE TEMPORARY STORAGE OF RENEWABLE ENERGY**
Dr.-Ing. Diethard König Chair of Foundation Engineering Soil and Rock Mechanics, Ruhr University Bochum

10:50 **GEOMECHANICAL SOLUTIONS FOR GEO-ENERGY ISSUES**
Prof. Lyesse Laloui Swiss Federal Institute of Technology, École polytechnique fédérale de Lausanne, Switzerland

11:25 **MODELLING CONCEPT OF SEASONAL HEAT STORAGE IN FLOODED COAL MINES:
CALCULATION AND VISUALIZATION OF COUPLED DENSITY AND VISCOSITY DEPENDENT FLOW**
Dr. Christoph König delta h Ingenieuresellschaft mbH

11:45 **MODERN CHALLENGES OF UNDERGROUND ENERGY STORAGES**
Dr. Tobias Rudolph Uniper Energy Storage GmbH

12:05 *Buffet with Poster Presentations*

13:20 **DER TUNNEL ALS WÄRMELIEFERANT / THE TUNNEL AS HEAT SUPPLIER**
Dipl.-Ing. Wolf Friedemann Züblin - Tunnelbau Stuttgart (TUB-S)

13:40 **PROCESS UNDERSTANDING OF REACTIVE MULTIPHASE FLOW SYSTEMS IN SALT DEPOSTS (PROSALZ)**
Dr. Rüdiger Giese Helmholtz Centre Potsdam - GFZ German Research Centre for Geosciences

14:00 **RESEARCH AT GEOTHERMAL SITE HORSTBERG WITH FOCUS ON GEOMECHANICS**
Dr. Alireza Hassanzadegan Federal Institute for Geosciences and Natural Resources

14:20 **COOPERATIVE RESEARCH IN SHYNERGIE AND AGES**
Prof. Jörg Renner Experimental Geophysics, Ruhr University Bochum

14:50 *Break*

15:10 **GENERAL ASSEMBLY OF THE RD SME**
For members of the RD SME: Discussion on future research cooperations