

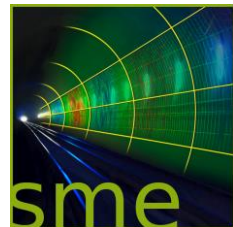
CRUST 2

2nd Colloquium for Young Researchers in Underground Science and Technology

ID 03/653, Friday 10 January 2020

Program

10:00	Opening address
	Session 1
10:10	<p>Artificial neural networks for real-time prediction of soil-structure interaction in mechanized tunnelling Cao¹, Obel², Freitag¹, Meschke¹, Mark² ¹<i>Institute for Structural Mechanics</i> ²<i>Institute for Concrete Structures</i> <i>Ruhr University Bochum</i></p>
10:40	<p>Hydro-mechanical behavior of over-consolidated clays with special focus on anisotropy Christ, Lavasan, Wichtmann <i>Chair of Soil Mechanics, Foundation Engineering and Environmental Geotechnics</i> <i>Ruhr University Bochum</i></p>
11:10	Coffee break
	Session 2
11:30	<p>Acoustic emission measurement, analysis, and control system to be used for monitoring of inhomogeneous materials, drilling and stimulation applications Jamali, Wittig, Bracke <i>Fraunhofer Institute for Energy Infrastructure and Geothermal Systems, Bochum</i> <i>International Geothermal Centre, Bochum</i></p>
12:00	<p>Reconstruction of structural anomalies in concrete plates out of seismic measurements by means of a non-deterministic full waveform inversion approach Trapp, Nestorović <i>Mechanics of Adaptive Systems</i> <i>Ruhr University Bochum</i></p>
12:30	Lunch break
	Session 3
13:30	<p>Waterjet-rock interaction under simulated reservoir type conditions Gradzki¹, Lindken², Wittig¹, Bracke¹ ¹<i>Fraunhofer Institute for Energy Infrastructure and Geothermal Systems, Bochum</i> ²<i>Bochum University of Applied Sciences</i></p>
14:00	<p>Computational modeling of hydraulic fracturing using cohesive-zone method and unified pipe-network model Yan^{1,2}, Timothy², Meschke² ¹<i>University of Mining and Technology, China</i> ²<i>Institute for Structural Mechanics, Ruhr University Bochum</i></p>



14:30	Cementitious composites with high compaction potential: modelling and calibration Vu¹, Ishkhakov¹, Timothy¹, Schulte-Schrepping², Breitenbücher², Meschke¹ <i>¹Institute for Structural Mechanics</i> <i>²Institute for Building Materials</i> <i>Ruhr University Bochum</i>
15:00	Poster Presentation
	Extension of the eigenerosion approach to ductile crack propagation at large strains and its application on hard metal microstructures Wingender, Balzani <i>Chair of Continuum Mechanics</i> <i>Ruhr University Bochum</i>
	Geomechanical characterization of overburden formations within the Rhine-Ruhr region for the geothermal energy utilization Kruszewski^{1,2}, Montegrossi³, Backers², Saenger^{1,2} <i>¹Bochum University of Applied Sciences</i> <i>²Ruhr University Bochum</i> <i>³National Research Council of Italy</i>
16:00	Closing