

FUSED 2023: Full Program Schedule



November 30th, 2023 / Saal 3, Veranstaltungszentrum, Ruhr-Universität Bochum

Time	Session	Presenter	Presentation title
9:00-9:15			Welcoming
9:15-9:45	Key Note		Development of the Bochum Dannenbaum mine for heating and cooling: drilling and pumping tests
9:45-10:00	Geological records relevant for geothermal systems	Luca Smeraglia <i>CNR (Italy)</i>	Giant carbonate veins as traces of hydrothermal fluid pathways in exhumed analogues of geothermal reservoir
10:00-10:15		Fiorella Arduin Rode <i>GA (Göttingen)</i>	Amethyst-agate geodes deposit from Uruguay: insights from one-phase fluid inclusions and stable isotopes
10:15-10:30		Mathias Hueck <i>RUB (Bochum)</i>	Thermochronology and geothermal systems: from nuisance to exploration tool and the challenges to overcome
10:30-11:00			Coffee Break
11:00-11:15	Advancements in Subsurface Engineering	Nicola Gottardi <i>RUB (Bochum)</i>	Getting the big picture right: tunnel lining safety prediction based on measurements deploying an AI-FEM-based concept
11:15-11:30		Chen Xu <i>RUB (Bochum)</i>	A Deeponet Approach for the Fusion of Simulations and Monitoring to Predict Settlement Field in Mechanized Tunneling
11:30-11:45		Evangelos Korkolis <i>RUB (Bochum)</i>	Water-assisted cracking in Anröchter sandstone
11:45-12:00		Timon Kayser <i>RUB (Bochum)</i>	Experimental investigation of coupled thermo-hydro-mechanical behaviour of Kaolin
12:00-13:00			Lunch
13:00-13:30	Key Note	Boris Dombrowski <i>DMT (Essen)</i>	Geothermal energy - ambitions & realization
13:30-13:45	Hazard Mitigation in Geothermal Operations	Victoria Jiménez <i>RUB (Bochum)</i>	Statistical approach to characterize stress field heterogeneity
13:45-14:00		Lei Wang <i>GFZ (Postdam)</i>	Fault roughness controls injection-induced seismicity
14:00-14:15		Alessandro Verdecchia <i>RUB (Bochum)</i>	From outcrops to lab experiments and modeling: a multidisciplinary, multiscale approach to mitigate seismic hazard in deep geothermal energy applications.
14:15-15:15	Posters	Alessandro Verdecchia <i>RUB (Bochum)</i>	SIEGFRIED – A New Interdisciplinary Project for Seismic Hazard Assessment to Accelerate the Geothermal Transition in the Lower Rhine Embayment
		Tobias Wolf <i>HSB (Bochum)</i>	Impact of thermal comfort driven building controls on the dimension of geothermal-heatpump-systems under consideration of different building type

	Sven Quiehl <i>HSB (Bochum)</i>	Environmental and Economic parameter study of Air-Source and Ground-Source Heat Pump Systems for existing Buildings
	Hossein Asghari Chehreh <i>RUB (Bochum)</i>	Numerical simulation of geomechanical experiments on granite
	Myo Thiri Kyaw <i>THGA (Bochum)</i>	Evaluation of transparent coating on metal surfaces
15:15-15:30	Hernan Flores <i>THGA (Bochum)</i>	Unlocking the Potential of Mine Waste in a Circular Economy: Innovative Tools, Challenges, and Opportunities
15:30-15:45	Johannes van Randenborgh <i>TUD (Dortmund)</i>	A tailored model for sustainable control of ATEs systems with mixed-integer programming
15:45-16:00	Fahim Mumand <i>RUB (Bochum)</i>	Two-well dipole test for aquifer characterization
16:00-16:15		Closing
16:15-17:00		Beer and Pretzels

Institutions:

CNR: Consiglio Nazionale delle Ricerche, Rome, Italy

DMT: DMT GmbH & Co. KG, Essen, Germany

F-IEG: Fraunhofer-Einrichtung für Energieinfrastrukturen und Geothermie IEG, Bochum, Germany

GA: Georg-August-Universität Göttingen, Göttingen, Germany

GFZ: Deutsches GeoForschungsZentrum, Postdam, Germany

HSB: Hochschule Bochum, Bochum, Germany

RUB: Ruhr Universität Bochum, Bochum, Germany

THGA: Technical University Georg Agricola, Bochum, Germany

TUD: Technische Universität Dortmund, Dortmund, Germany