

Symposium Agenda

Monday, November 04, 2018

Welcome and Opening Ceremony (Chair: TBD)	
9:00	Welcome, Safety, and Logistics Symposium Co-Chair: Bastian Graupner, Swiss Federal Nuclear Safety Inspectorate (ENSI), Switzerland
9:15	Welcome Note Felix Altorfer: Director of the Waste Management Department, ENSI
9:30	Keynote - Coupled Processes in the Context of Radionuclide Waste Disposal: Importance to the Safety Case Frédéric Plas: Director of Research and Development, Andra, France
10:00	Overview of the DECOVALEX Project – The Past, Current, and Future Symposium Co-Chair: Jens Birkholzer, Lawrence Berkeley National Laboratory, Berkeley, USA
10:30	Break
Session 1: Engineered Barrier Systems & Engineered-Natural Material Interactions (Chair: TBD)	
11:00	HM and THM Interactions in Bentonite Engineered Barriers Antonio Gens
11:15	Homogenisation in Bentonite: Lesson Learned From Laboratory Testing Katherine A. Daniels, Jon F. Harrington, Patrik Sellin
11:30	Hydro-Mechanical Behavior of a Bentonite Pellet/Powder Mixture. Experimental and Modelling Results Nadia Mokni, Agustín Molinero Guerra, Yu-Jun Cui, Pierre Delage
11:45	Modelling of THM Processes in Bentonite Sealing Barriers Radim Blaheta, Zdeněk Michalec, Martin Hasal, Tomáš Ligurský
12:00	Numerical Modeling of Coupled Thermo-Hydro-Mechanical Processes of Compacted Bentonite in the China-Mock-Up Test Jingbo Zhao, Liang Chen, Federic Collin
12:15	Coupled Processes across a Claystone-Concrete Interface: Results of a Combined X-Ray CT and PET Transport Experiment U. Mäder, E. Bernard, J. Kulenkampff, A. Jenni
12:30	Lessons Learned from THMC Modeling of a Long-Term in Situ Test for an Engineered Barrier System Liang Zheng, Hao Xu, Jonny Rutqvist, Jens T. Birkholzer
12:45	Lunch
Session 2: Gas Transport & Coupled Processes in Crystalline Rock (Chair: TBD)	
13:45	Gas Transport in Bentonite – a Model Validation Exercise in the Context of SKB's EBS Task Force P. Marschall, C. Li, E. Romero, L. González Blanco, A. Madaschi, L. Laloui, A. Papafotiou
14:00	Modelling Advective Gas Flow in Compact Bentonite: Lessons Learnt from Different Numerical Approaches J.F. Harrington, E. Tamayo-Mas, H. Shao, E.E. Dagher, J. Lee, K. Kim, S.H. Lai, N. Chittenden, Y. Wang, I.P. Damians, S. Olivella
14:15	Development of an Upscaled HM Model for Representing Advective Gas Migration Through Saturated Bentonite Neil Chittenden, Steven Benbow, Alex Bond, Simon Norris
14:30	Simulating Hydraulic Tests in an Excavation Damage Zone Tobias Meier
14:45	Planned Coupled Thermo-Mechanical Experiments in the Nizhnekansk Underground Research Facility Evgeny Moiseenko, Nikolay Drobyshevsky, Roman Butov, Yuriy Tokarev
15:00	Methodology Development for Modelling and Simulation of the Environmental Recovery Process after the Tunnel Closure - Overview of DECOVALEX-2019 Task C: GREET Teruki Iwatsuki
15:15	Direct in-situ Probing of Fracture Deformation Coupled to Fluid Pressure at Relevant Nuclear Waste Repository Depths – The COSC-1 Deep Borehole Experiments (Sweden) Auli Niemi, Yves Guglielmi, Patrick Dobson, Paul Cook, Chris Juhlin, Chin-Fu Tsang, Benoit Dessirier, Alexandru Tatmir, Henning Lorenz, Farzad Basirat, Bjarne Almqvist, Emil Lundberg, Jan-Erik Rosberg
15:30	Break
Poster Session	
16:00 -17:30	Please Refer To the Poster Session List.
Banquet Dinner	
19:00	Banquet Dinner at Grand Casino Baden, Haselstrasse 2, 5400 Baden Invited Dinner Presentation, Chin-Fu Tsang, Uppsala University, Sweden

Symposium Agenda

Tuesday, November 5, 2019

Keynote Presentation (Chair: TBD)

9:00	Keynote - Subsurface Energy Applications and the Importance of Coupled Processes in Shales Lyesse Laloui, Professor, Swiss Federal Institute of Technology, EPFL Lausanne, Switzerland
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Session 3: Coupled Processes in Rock Salt and Claystone (Chair: TBD)

9:30	Brine Availability Test in Salt (BATS): Coupled Processes Kris Kuhlman
9:45	Investigation of THMC-Coupled Processes on Sealing Systems in Rock Salt Kyra Jantschik, Oliver Czaikowski, Thorsten Meyer
10:00	Quantification of Hydrocarbon Release due to Underground Excavation in Rock Salt Hua Shao, Yifeng Wang, Thomas Nagel, Olaf Kolditz, Keita Yoshioka
10:15	The Full-Scale Emplacement (FE) Experiment Modelling Task Force A. Alcolea, A. Madaschi, J.A. Bosch, A. Ferrari, L. Laloui, I.P. Damians, S. Olivella, A. Gens, P. Marschall, B. Garitte, B. Firat-Lüthi
10:30	A Reliable Numerical Analysis for Large-Scale Modelling of a High-Level Radioactive Waste Repository in the Callovo-Oxfordian Claystone C. Plua, G. Armand, M. N. Vu, J. Rutqvist, J. Birkholzer, H. Xu, R. Guo, K.E. Thatcher, A.E. Bond, W. Wang, T. Nage, H. Shao, O. Kolditz
10:45	Coupling Clay Swelling Properties to Hydro-Geochemical Conditions: a Reactive Transport Modeling Approach Christophe Tournassat, Orléans France, Stéphane Gaboreau, Francis Claret, Carl Steefel
11:00	<i>Break</i>

Session 4: Fault Slip and Induced Seismicity (Chair: TBD)

11:30	Complexity of Fault Rupture and Fluid Leakage in Shale: Insights from a Controlled Fault Yves Guglielmi, Christophe Nussbaum, Pierre Jeanne, Jonny Rutqvist, Frederic Cappa, Jens Birkholzer, Bastian Graupner
11:45	Results from an International Simulation Study of a Controlled Fault Activation Experiment at Mont Terri Laboratory Jonny Rutqvist, Bastian Graupner, Yves Guglielmi, Jens Birkholzer, Taehyun Kim, Jobst Maßmann, Thanh Son Nguyen, Jung-Wook Park, Wenjie Shiu, Luca Urpi, Jeoung Seok Yoon, Gesa Ziefle
12:00	Coupled Processes in Clay: Preliminary Results from Mont Terri CS-D and FS-B Experiments Antonio P. Rinaldi, Yves Guglielmi, Alba Zappone, CS-D/FS-B Collaboration Team
12:15	Development of EPCA3D and its Applications in Coupled THMC Processes in Geological Media Peng-Zhi Pan, Xia-Ting Feng, Peiyang Yu, Changyue Shao
12:30	The Role of Coupled Processes in Managing the Risk of Induced Seismicity in Geoenery Applications Stefan Wiemer, Alba Zappone, Dimitrios Karvounis, Anne Obermann, Antonio Pio Rinaldi
12:45	Coseismic Secondary Failure in Fractured Crystalline Rocks Triggered by Large Earthquake Events Qinghua Lei, Simon Loew
13:00	<i>Lunch</i>

Session 5: Cross-Cutting Topics and Emerging Methods (Chair: TBD)

14:00	Far-From-Equilibrium Thermo-Hydro-Mechanical Multiphase Gas Transport in Hierarchical Porous Media Thomas Dewers, Teklu Hadgu, Yifeng Wang, Edward Matteo, Carlos Jove-Colon, Jason Heath, Nicolas Hayman
14:15	Lessons Learned in the Development of Source Term Surrogate Models for Repository Performance Assessment Paul E. Mariner, Bert J. Debusschere, D. Thomas Seidl, Laura P. Swiler, Jonathan Vo
14:30	Laboratory Study on the Volumetric Response of Gas Shale Samples with Controlled Pore Fluid Pressures Jinwoo Kim, Alessio Ferrari, Russell Ewy, Lyesse Laloui
14:45	Insights into Hydro-Mechanical Responses of a Crystalline Rock Mass During Hydraulic Stimulation Experiments Hannes Krietsch, Valentin Gischig, Joseph Doetsch, Mohammadreza Jalali, Linus Villiger, Florian Amann
15:00	Coupled Thermo-Hydro-Mechanical Simulations of a Supercritical Geothermal System F. Parisio, V. Vilarasa, W. Wang, O. Kolditz, T. Nagel
15:15	Experimental and Analytical Assessment of Draupne Shale Seal Integrity for CO₂ Storage Sites Magnus Soldal, Elin Skurtveit, Bahman Bohloli, Heidi Debreczeny Wilkinson, Jung Chan Choi, Luke Griffiths, Halvard Smith
15:30	The Importance of Natural Rock Heterogeneity in Governing Transport During CO₂ Storage Sam Krevor
15:45	<i>Break</i>

Panel Session

16:15	Topics and Participants Are To Be Determined.
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Closing Remarks

17:15	Symposium Co-Chairs: Bastian Graupner and Jens Birkholzer
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