

Program at a Glance

Monday, November 14, 2022				
Welcome and Opening Ceremony (Chair: Mengsu Hu)				
8:30-8:50	Welcome, Safety, and Logistics-- Mengsu Hu, Carl I. Steefel & Jonny Rutqvist Opening Remarks Laura J. Pyrak Nolte, Vice President, International Society for Rock Mechanics and Rock Engineering			
Keynote Presentation (Chair: Jens Birkholzer)				
8:50-9:35	Coupled THMC Processes in Fractured Rocks: Looking Backward and Seeing Forward-- Chin-Fu Tsang			
9:40-9:50	Group Photo			
9:50-10:20	<i>Coffee Break with AM Refreshment</i>			
Sessions	A-1: Machine Learning I M. Hu & L.J. Pyrak-Nolte	B-1: Geothermal I H. Hofmann & T. Poulet	C-1: Nuclear Waste I J. Rutqvist & J.S. Yoon	D-1: Critical Zone C.I. Steefel & Q. Lei
10:20-10:35	David D. Nolte (Distinguished Invited)	L. Zhuang (Invited)	034- J. Birkholzer	140- B. Faybishenko
10:35-10:50		036- Q. Zhou	018- Z. Yu	128- K.M. Pietrzyk
10:50-11:05	127- R.M. Weber	077- M. B. Dusseault	048- J.W. Kim	185- L. Stolze
11:05-11:20	148- T. Kadeethum	035- H. Hofmann	068- J. Thiedau	139- A. Hunt
11:20-11:35	Hari Viswanathan (Distinguished Invited)	064- D. Degen	212- J. Rutqvist	228- X. Gu
11:35-11:50		142- E. Sonnenthal	099- M. Souley	196- S. Uhlemann
12:00-13:30	<i>Lunch</i>			
Keynote Presentation (Chair: Jonny Rutqvist)				
13:30-14:15	Role of Pore Fluid Pressure on Fracture Propagation-- Wenlu Zhu			
Sessions	A-2: Machine Learning II M. Hu & L.J. Pyrak-Nolte	B-2: Geothermal II Z. Zhao & B. Li	C-2: Nuclear Waste II A. Bond & K.W. Chang	D-2: Flow and Transport L. Zou & J.O. Selroos
14:20-14:35	Hongkyu Yoon (Distinguished Invited)	179- A. Ghavidel	173- C. Plua	167- R. Makhnenko
14:35-14:50		030- Y. Chen	218- K.B. Min	104- J.S. Molist
14:50-15:05	Yuxing Ben (Distinguished Invited)	053- Z. Zhao	029- B. Shen	111- L. Zou
15:05-15:20		098- H. Wu	136- K.W. Chang	081- A.K. Asl
15:20-15:35	059- U. Mital	116- B. Li	131- S. Borglin	073- S. Yu
15:35-16:00	<i>Coffee Break with PM Refreshment</i>			
Panel Discussion (Chair: Carl I. Steefel)				
16:00-17:15	Carbon Neutrality Derek Elsworth, Dongxiao Zhang, Maurice B. Dusseault, Hajime Yamamoto, Ranjith Pathegama Gamage			
Posters & Reception				
17:30-19:00	Virtual Poster & Reception (Chairs: Pengzhi Pan, Antonio Pio Rinaldi, Hideaki Yasuhara, Ki-Bok Min)			
19:00-21:00	In-Person Poster & Reception (Chairs: Mengsu Hu, Carl I. Steefel, Jonny Rutqvist)			

Program at a Glance

Tuesday, November 15, 2022				
Keynote Presentation (Chair: Hideaki Yasuhara)				
8:30-9:15	n(crack-seal) – the interaction of microfracturing and crystal growth in geothermal reservoirs-- Janos Urai			
9:20-9:45	<i>Coffee Break with AM Refreshment</i>			
Sessions	A-3: Machine Learning III M. Hu & L.J. Pyrak-Nolte	B-3: THM Modeling B. Figueiredo & H.S.Viswanathan	C-3: Salt L. Blanco-Martin & J. Rutqvist	D-3: Hydraulic Fracturing I F. Zhang & E. Dontsov
9:45-10:00	Gregory C. Beroza (Distinguished Invited)	227- D.N. Espinoza	017- Z. Li	Mark McClure (Invited)
10:00-10:15		075- L. Wang	125- R. Wolters	138- M. Radonjic
10:15-10:30	090- Z. Wang	165- Y. Maeda	209- S. M. Bourret	058- E. Dontsov
10:30-10:45	069- B. Lin	066- I. Vaezi	222- H. Tounsi	091- F. Zhang
10:45-11:00	Nantheera Anantrasirichai (Distinguished Invited)	123- S. De Simone	Christopher J. Spiers (Distinguished Invited)	096- Y. Jia
11:00-11:15		101-X. Cui		113- I. Reznikov
Chin-Fu Tsang Award Ceremony & Award Lecture (Chair: Jonny Rutqvist)				
11:20-11:30	Chin-Fu Tsang Coupled Processes Award Ceremony-- Chin-Fu Tsang			
11:30-12:05	Award Lecture: Predicting Transport, Mixing, and Reaction in Fractured Porous Media-- Peter K. Kang			
12:05-13:30	<i>Lunch</i>			
Keynote Presentation (Chair: Ki-Bok Min)				
13:30-14:15	The Origin and Importance of Variations of Stress Magnitude with Depth in Sedimentary Sequences-- Mark Zoback			
Sessions	A-4: Induced Seismicity I V. Vilarrasa & R. Makhnenko	B-4: Shearing of Fractures L. Zhuang & F. Zhang	C-4: Hydrogen Storage P. Newell & C.I. Steefel	D-4: Hydraulic Fracturing II X. Tang & H. Zhu
14:20-14:35	171- I.R. Kivi	Omid Moradian (Invited)	Maartje Boon (Invited)	061- M.B. Dusseault
14:35-14:50	065- F. Cappa	074- T. Jeppson	027- M. Abuaisha	162- R. Gracie
14:50-15:05	152- T. Poulet	088- C. Sun	224- F. Chen	180- C.B. Cunha
15:05-15:20	124-W. Cao	089-L. Cui	189- B. Leuger	151- D.A. Chuprakov
15:20-15:35	076- S. Roshankhah	235- A. Voigtländer	Joshua White (Invited)	208- T. Li
15:35-16:00	<i>Coffee Break with PM Refreshment</i>			
Sessions	A-5: Induced Seismicity II V. Vilarrasa & R. Makhnenko	B-5: Laboratory Tests M. Bourret	C-5: Underground Storage H. Liu, P. Pan, Z. Wang	D-5: Reactive Transport S. Molins & C. Tournassat
16:00-16:15	021- A. Boyet	024- L. Pyrak-Nolte	031- L. Zhang	231- I. Battiato
16:15-16:30	121- G.A. Hutka	134- P.A. Selvadurai	043- H. Liu	221-S. Molins
16:30-16:45	154- Y. Tian	120- P. Bianchi	175- Q. Gan	129- Q. Hu
16:45-17:00	079- K. Luu	191- H. Chen	184- D. Wang	112- C. Tournassat
17:00-17:15	207- L. Dal Zilio	143- N. Bondarenko	210- S. Wani	211- S. Fan
Banquet Dinner (Chair: Carl I. Steefel)				
18:00-20:30	<i>Banquet Dinner</i>			

Program at a Glance

Wednesday, November 16, 2022				
Keynote Presentation (Chair: Jonny Rutqvist)				
8:30-9:15	Thermo-Hydro-Mechanical Processes in Heterogeneous Rocks-- Patrick Selvadurai			
Sessions	A-6: Geophysical Monitoring T. Ishibashi, Y. Mukuhira, S Ogata	B-6: Modeling of Fracturing K. Yoshioka, W. Cao	C-6: CO2 Storage R. Makhnenko & V. Vilarrasa	D-6: Clay and Shale C. Tournassat, T. Gimmi
9:20-9:35	Timothy Johnson (Invited)	203- S.J. Ha	Ruben Juanes (Invited)	206- A. Ramon-Taragona
9:35-9:50	097- K. Sawayama	219- G. Ren	063- Y. Xin	204- Y. Qi
9:50-10:05	105- T. Ishibashi	190- C. Saceanu	147- M.P. Murugesu	213- C.I. Steefel
10:05-10:20	199- J. Wang	013- F. Liu	153- A. Elbanna	226- R. Prakash
10:20-10:35	158- X. Tang	020- T. You	234- D. Sciandra	242- T. Sasaki
10:35-10:50	040- X. Hu	118- W. Hou	022- T. Akaki	145- H. Kim
10:50-11:15	<i>Coffee Break with AM Refreshment</i>			
Keynote Presentation (Chair: Mengsu Hu)				
11:15-12:00	Permeability Map-- Jishan Liu			
12:00	<i>Lunch</i>			
Emerging Scientists (Chair: Ki-Bok Min)				
13:30-14:00	Simulation of Fracture-Matrix Interaction using Micro-Continuum Approaches-- Cyprien Soulaire			
14:00-14:30	New Descriptors and Estimations of Structures of Flow Paths in Fractured Rocks-- Anna Suzuki			
14:30-15:00	Investigating the Propagation of Shock-Induced Melt Veins beyond Earth Numerically and Experimentally Xuhai Tang			
15:00-15:30	<i>Coffee Break with PM Refreshment</i>			
15:30-16:00	Comprehensive In-Situ Stress Estimation for a Fractured Geothermal Reservoir from Drilling, Hydraulic Stimulations, and Induced Seismicity-- Sehyeok Park			
16:00-16:30	Low-Frequency Nonlinear Elasticity: a Powerful Tool for Probing Fractures-- Harrison Lisabeth			
16:30-17:00	Predicting the Unpredictable: Optimizing Geothermal System Design through Scaling Theory, Statistics, and Rock Fracture Fluid-Flow Phenomenology-- Luke P. Frash			
Closing Ceremony (Chair: Carl I. Steefel)				
17:00-17:15	Announcement of Best Oral Presentation and Best Poster Awards-- Ki-Bok Min & Carl I. Steefel			
17:15-17:20	Closing Remarks-- Mengsu Hu, Carl I. Steefel & Jonny Rutqvist			