

ID	Session	Room	Date	Time	Title	Author(s)	Presenter	Organization	Convener 1	Convener 2	Notes
25	Computational poromechanics 4	Rm 6613	Oct-9	3:10-3:35	I-FENN with DeepONets: accelerating simulations in coupled poro-mechanics problems	<b>Mostafa Mobasher</b>	<b>Mostafa Mobasher</b>	New York University Abu Dhabi	Hongkyu Yoon		Chair: Hongkyu Yoon
26	Geological systems 4	Rm 5606	Oct-9	3:10-3:35	Phase field modeling of hydraulic fracture in layered rock	<b>Chloé Arson</b> Lingfu Liu Zahera Jabeen	<b>Chloé Arson</b>	Cornell University	Shahrazad Roshankhah	Jihoon Kim	Chair: Ahmed Elbana,
27	Pore-Scale Dynamics in Porous Media 1	Rm 6500	Oct-9	10:30-10:55	Modular Simulation of Coupled Unsaturated Flow and Geomechanics with GReS: A Pore-scale Application	<b>Andrea Franceschini</b> Daniele Moretto Eduardo Castro Massimiliano Ferronato	<b>Andrea Franceschini</b>	University of Padova	Yashar, Ruby, Bo		
28	Computational poromechanics 2	Rm 6613	Oct-8	3:50-4:15	Non-intrusive global-local method for the poroelasticity model with localized pressure effects	Hemanta Kumar <b>Sanghyun Lee</b> Son-Young Yi	<b>Sanghyun Lee</b>	The University of Texas at El Paso Florida State University The University of Texas at El Paso	Beatrice Riviere	Ian Bourg	Chair: Beatrice Riviere
30	Computational poromechanics 5	Rm 6613	Oct-10	9:00-9:25	Physics-constrained symbolic water retention model discovery for porous media with multimodal pore size distributions	Yejin Kim <b>Hyoungh Suk Suh</b>	<b>Hyoungh Suk Suh</b>	Case Western Reserve University	Hongkyu Yoon	if convener#1 is not assigned, Chair: Hongkyu Yoon	
32	Computational Poromechanics I	Rm 6613	Oct-8	10:30-10:55	Simulations of two-phase flows in heterogeneous deformable porous media	<b>Beatrice Riviere</b>	<b>Beatrice Riviere</b>	Rice University	Beatrice Riviere	Ian Bourg	Chair: Beatrice Riviere
33	Fracture in porous media 2	Rm 5614	Oct-10	11:10-11:35	Coupling CFD-DEM modeling of thermo-hydro processes in fractured network media	<b>Hoai Thanh Nguyen</b> Pania Newell	<b>Hoai Thanh Nguyen</b>	The University of Utah	Frank Fei		
34	Computational poromechanics 4	Rm 6613	Oct-9	3:35-4:00pm	Data-Driven Homogenization of Porous Materials: A GPU-Accelerated Neural Network Approach to Predicting Macroscale Fracture Behavior of Porous Materials	<b>ANTON SMOLYANY</b>	<b>ANTON SMOLYANY</b>	The University of Utah	Hongkyu Yoon		Chair: Hongkyu Yoon
35	Computational poromechanics 3	Rm 6613	Oct-9	11:45-12:10	Microscopic Origin of Hysteresis in CH <sub>4</sub> Sorption-Induced Deformed Coal Matrix: Insights from Stepwise Hybrid GCMC/MD Simulations	<b>Zhehui Jin</b> Quanlin Yang	<b>Zhehui Jin</b>	University of Alberta	Ian Bourg	Hongkyu Yoon	Chair: Ian Bourg
36	Pore-Scale Dynamics in Porous Media 2	Rm 6500	Oct-9	3:35-4:00	A Variational Phase-Field Framework for Modeling Pore-Scale Melting and Refreezing at the Ice–Ocean Interface	<b>Junning Liu</b> Xiaojing Fu	<b>Junning Liu</b>	CALIFORNIA INSTITUTE OF TECHNOLOGY	Yashar, Ruby, Bo		
37	Fracture in porous media 1	Rm 5610	Oct-10	9:50-10:15	Coupled Chemo-Mechanical Crack Propagation using a Phase-Field Approach	<b>Giancarlo Ventura</b> Ronaldo Borja	<b>Giancarlo Ventura</b>	Stanford University			
38	Porous materials behavior 1	Rm 5602	Oct-9	11:20-11:45	The Impact of Dry Snow Metamorphism on Effective Thermal Conductivity of Porous Ice	<b>J. Jackson Baglino</b> Adrian Moure Xiaojing Fu	<b>J. Jackson Baglino</b>	California Institute of Technology	Bing li		Chair:

ID	Session	Room	Date	Time	Title	Author(s)	Presenter	Organization	Convener 1	Convener 2	Notes
39	Wave propagation in porous media 1	Rm 6500	Oct-8	10:30-10:55	Modelling the Pressure Effects on Wave Dispersion and Attenuation in Fluid-Saturated Dual-Porosity Media	<b>Fubin Chen</b> Zhaoyun Zong Xingyao Yin Jiayun Li	<b>Fubin Chen</b>	China University of Petroleum	Stas Glubokovskikh	Yury Podladchikov	Chair: Stas Glubokovskikh
40	Pore-Scale Dynamics in Porous Media 1	Rm 6500	Oct-9	10:55-11:20	A High-order Preconditioner for Pore-Scale Mechanics	<b>Yashar Mehmani</b> Sabit Mahmood Khan	<b>Yashar Mehmani</b>	Penn State University	Yashar, Ruby, Bo		Chair:
41	Pore-Scale Dynamics in Porous Media 1	Rm 6500	Oct-9	11:20-11:45	Predicting Pore-Scale Failure: Integrating Experiment with Computation	<b>Tahmid Rakin Siddiqui</b> Yashar Mehmani	<b>Tahmid Rakin Siddiqui</b>	Penn State University	Yashar, Ruby, Bo		Chair:
42	Pore-Scale Dynamics in Porous Media 2	Rm 6500	Oct-9	3:10-3:35	A cross-scale characterization to bridge the observational gap between wormholes and pore networks in porous rocks	<b>Wei Li</b> Akhil Kolanti David Sprouster Zijie Xu	<b>Wei Li</b>	Stony Brook University	Yashar, Ruby, Bo		
43	Soft mater and novel porous media 1	Rm 5610	Oct-8	11:45-12:10	Tailored Framework Designs for Improved Catalytic Efficiency of Heme-containing Proteins	<b>Raheleh Ravanfar</b>	<b>Raheleh Ravanfar</b>	Texas Tech University	Hossein Montazerian	Emma Davoodi	Chair: Hossein Monazerian
44	Fracture in porous media 1	Rm 5610	Oct-10	10:15-10:40	Connecting In Situ Stress to Near-well Hydraulic Fracture Complexity with Phase-field Simulations	<b>Fan Fei</b> Yunxing Lu Andrew P. Bungler Matteo Cusini	<b>Fan Fei</b>	Atmospheric, Earth, & Energy Division, Lawrence Livermore National Laboratory,			
45	Geological systems 3	Rm 5606	Oct-9	4:00-4:25	Molecular-Scale Analysis of Microbial Metabolism Effects on Hydrodynamics in Underground Hydrogen Storage	<b>Aruzhan Tleubek</b> Arvand Vedadi Amin Hamed Mashhadzadeh Salah A. Faroughi	<b>Aruzhan Tleubek</b>	University of Utah	Shahrazad Roshankhah	Jihoon Kim	
46	Computational poromechanics 5	Rm 6613	Oct-10	9:50-10:15	Surrogate Modeling of Granular Elasto-Plasticity Using Kolmogorov-Arnold Networks with Chebyshev Polynomial Representation	Farinaz Mostajeran <b>Aruzhan Tleubek</b> Salah A. Faroughi	<b>Aruzhan Tleubek</b>	University of Utah	Hongkyu Yoon	if convener#1 is not assigned, Chair: Hongkyu Yoon	
48	Poster*	Event: The Biot Mixer: Posters, People, and Pours (P³)	Oct-9	6:30 pm – 8:30 pm	Pore-Scale Modeling of Two-Phase Flow in Heterogeneous Wetttable Media	<b>Arvand Vedadi</b> Salah Faroughi	<b>Arvand Vedadi</b>	University of Utah			
51	Porous materials behavior 1	Rm 5602	Oct-9	10:30-10:55	Modeling of Entrained Air Dissolution and Long-Term Saturation: Role of Microstructure in Emerging Cementitious Materials	<b>Aiqing Xu</b> Kimberly E Kurtis	<b>Aiqing Xu</b>	Georgia Institute of Technology	Bing Li		
52	Pore-Scale Dynamics in Porous Media 3	Rm 6500	Oct-10	10:15-10:40	Using PIKAN to Track Fate and Transport of PFAS in the Vadose Zone	<b>Nicholas Baker</b> Farinaz Mostajeran Salah A. Faroughi	<b>Nicholas Baker</b>	University of Utah	Yashar, Ruby, Bo		

ID	Session	Room	Date	Time	Title	Author(s)	Presenter	Organization	Convener 1	Convener 2	Notes
55	Wave propagation in porous media 3	Rm 5614	Oct-9	10:30-10:55	Elastic wave propagation in fluid saturated porous media with sinusoidally varying pore geometry	<b>Weitao Sun</b>	<b>Weitao Sun</b>	Tsinghua University			Chair: Boris Gurevich
56	Wave propagation in porous media 2	Rm 6500	Oct-8	4:15-4:40	Physical modeling of elastic wave propagation in fluid saturated porous media	<b>Pinbo Ding</b> Feng Zhang Xiang-yang Li	<b>Pinbo Ding</b>	China University of Petroleum			Chair: Kami Mohammadi
58	Pore-Scale Dynamics in Porous Media 2	Rm 6500	Oct-9	4:00-4:25	Quantifying Drying and Pore Flow in Dual-Porosity Porous Micromodels Using Micro-PIV	<b>Yaofa Li</b> Md Ahsan Habib Bo Guo Diego Armstrong	<b>Yaofa Li</b>	University of California, Riverside Montana State University University of Arizona Montana State University	Yashar, Ruby, Bo		
59	Experimental poromechanics 2	Rm 5610	Oct-9	3:10-3:35	Damage Monitoring in Porous Concrete Via Deep Learning of Capsule Aggregate's Impedance Signals	<b>Jeong-Tae Kim</b>	<b>Jeong-Tae Kim</b>	Pukyong National University, South Korea			Chair: Eric Hintsala
60	Computational Poromechanics I	Rm 6613	Oct-8	10:55-11:20	Probabilistic Modeling of Two-dimensional Consolidation Using the Spectral Feynman-Kac Approach	<b>Naina Deb</b> Arindam Dey Budhaditya Hazra	<b>Naina Deb</b>	Indian Institute of Technology Guwahati	Beatrice Riviere	Ian Bourg	Chair: Beatrice Riviere
61	Wave propagation in porous media 4	Rm 5614	Oct-9	3:10-3:35	Inelastic Poromechanics and Solitary Wave Dynamics in Fluid-Saturated Rocks	<b>Viktoriya Yarushina</b>	<b>Viktoriya Yarushina</b>	Institute for Energy Technology			Chair: Weitao Sun
63	Wave propagation in porous media 2	Rm 6500	Oct-8	5:05-5:30	Should seismic wave propagation in high-pressure, high-temperature media be a concern?	<b>Wubing Deng</b> Li-Yun Fu	<b>Wubing Deng</b>	School of Geosciences			Chair: Kami Mohammadi
64	Pore-Scale Dynamics in Porous Media 3, Conveners: Yashar, Ruby, Bo	Rm 6500	Oct-10	9:00-9:25	Liquid-Vapor Interfaces in Pore-Scale Evaporation: Insights from Direct Numerical Simulation using Lattice Boltzmann Method	<b>Piyush Pradhan</b> Pierre Gentine Shaina Kelly	<b>Piyush Pradhan</b>	Department of Earth & Environmental Engineering, Columbia University			
67	Porous materials behavior 1	Rm 5602	Oct-9	10:55-11:20	Modeling the Initial Swelling and Capillary Contraction of Porous Materials During Wetting and Drying	<b>Mohammadali Behboodi</b> Yida Zhang	<b>Mohammadali Behboodi</b>	University of Colorado Boulder	Bing Li		
68	Computational poromechanics 5	Rm 6613	Oct-10	9:25-9:50	A Learning-based Multiscale Model for Underground Fluid Transport Processes	<b>Mina Karimi</b> Kaushik Bhattacharya	<b>Mina Karimi</b>	California Institute of Technology	Hongkyu Yoon	if convener#1 is not assigned, Chair: Hongkyu Yoon	
70	Wave propagation in porous media 5	Rm 5614	Oct-10	9:50-10:15	Shock-Like Propagation of Hydration and Dehydration Reaction Fronts in Poromechanical Systems	Stefan Markus Schmalholz <b>Yury Podladchikov</b>	<b>Yury Podladchikov</b>	University of Lanne, Switzerland			Chair: Yury Alkhimenkov

ID	Session	Room	Date	Time	Title	Author(s)	Presenter	Organization	Convener 1	Convener 2	Notes
71	Fracture in porous media 2	Rm 5614	Oct-10	11:35-12:00	Effects of Pore Fluid Pressure in Extension-shear Mixed-mode Fracture in Carrara Marble and Berea Sandstone	<b>Cate Tilley</b> Casey Ruplinger Daniel Worley Hiroko Kitajima Jacob Tristan	<b>Cate Tilley</b>		Frank Fei		
72	Soft mater and novel porous media 1	Rm 5610	Oct-8	10:30-10:55	Impact of Interstitial Fluid Flow on Cancer Metastasis at the Bone Site	<b>Dinesh Katti</b> Haneesh Jasuja Kalpana Katti Preetham Ravi Sharad Jaswandkar	<b>Dinesh Katti</b>	North Dakota State University	Hossein Montazerian	Emma Davoodi	Chair: Hossein Monazerian
73	Geological Systems 4	Rm 5606	Oct-9	4:25-4:50	Micromechanical Investigation of Granite Under Coupled Thermal and Saturated Conditions	Ozan Altuntas <b>Hongkyu Yoon</b> Pania Newell	<b>Hongkyu Yoon</b>	The University of Utah S&ia National Laboratories The University of Utah	Shahrzad Roshankhah	Jihoon Kim	Chair: Ahmed Elbana
75	Soft mater and novel porous media 2	Rm 5610	Oct-8	4:40-5:05	Modeling Consolidation of Soft Porous Core-Solid Sheath Rods	<b>Arina Korneva</b> Denis Kucherenko	<b>Arina Korneva</b>	Virginia Tech	Hossein Montazerian	Emma Davoodi	Chair: Emma Davoodi
76	Wave propagation in porous media 1	Rm 6500	Oct-8	11:45-12:10	Decompaction Weakening as a Mechanism of Fluid Focusing in Hydrothermal Systems	<b>Ivan Utkin</b> Andrey Afanasyev	<b>Ivan Utkin</b>	Laboratory of Hydraulics, Hydrology & Glaciology VAW, ETH Zurich, Zurich, Switzerland (Institute of Mechanics, Moscow State University, Moscow, Russian Federation)	Stas Glubokovskikh	Yury Podladchikov	Chair: Stas Glubokovskikh
77	Wave propagation in porous media 5	Rm 5614	Oct-10	9:00-9:25	Nonlinear porosity waves in elasto-visco-plastic reactive media under gravity	Yury Podladchikov <b>Viktoriya Yarushina</b>	<b>Viktoriya Yarushina</b>	University of Lanne Institute for Energy Technology			Chair: Yury Alkhimenkov
78	Soft mater and novel porous media 2	Rm 5610	Oct-8	5:05-5:30	Porous Hierarchically Ordered Hydrogels	Robert Hickey <b>Shubhra Goel</b>	<b>Shubra Goel</b>	The Pennsylvania State University	Hossein Montazerian	Emma Davoodi	Chair: Emma Davoodi
79	Poster*	Event: The Biot Mixer: Posters, People, and Pours (P³)	Oct-9	6:30 pm – 8:30 pm	Seismic Properties of Basal Cambrian Sandstones: Implications for Seismic Monitoring of Geological Storage and Sequestration	Douglas Schmitt <b>Anthony Wendel</b> David Diaz Jason Nycz Randolf Kofman	<b>Anthony Wendel</b>	Purdue University	Shahrzad Roshankhah	Jihoon Kim	Chair: Jihoon Kim
82	Wave propagation in porous media 5	Rm 5614	Oct-10	9:25-9:50	Shock- and soliton-like porosity evolution in reacting and deforming saturated rocks	<b>Lyudmila Khakimova</b>	<b>Lyudmila Khakimova</b>	University of Lanne			Chair: Yury Alkhimenkov
83	Soft mater and novel porous media 1	Rm 5610	Oct-8	11:20-11:45	Field-Driven, Bioinspired Design of Porous Orthopedic Implants: Reducing Stress Shielding and Enhancing Osseointegration	<b>Sajjad Raeisi</b>	<b>Sajjad Raeisi</b>	GenMat LLC, Irvine, CA	Hossein Montazerian	Emma Davoodi	Chair: Hossein Monazerian
85	Soft mater and novel porous media 3	Rm 5606	Oct-9	10:30-10:55	Poroelastic diffusion and transient wetting of droplets on hydrogels	<b>H. Jeremy Cho</b> Amir Kashani	<b>H. Jeremy Cho</b>	University of Nevada, Las Vegas	Christopher Macminn	Jeremy Cho	Chair: Christopher Macminn

ID	Session	Room	Date	Time	Title	Author(s)	Presenter	Organization	Convener 1	Convener 2	Notes
86	Wave propagation in porous media 4	Rm 5614	Oct-9	4:00-4:25	From Linear Gassmann's Equations to Nonlinear Solitary Porosity Waves in Deforming Porous Media	Yury Alkhimenkov	<b>Yury Alkhimenkov</b>	University of Lausanne			Chair: Weitao Sun
90	Soft mater and novel porous media 2	Rm 5610	Oct-8	3:50-4:15	Simulation of Biofilm Deformation Under Flow	<b>Ian Bourg</b> Francisco Carrillo Mitchell Jans	<b>Ian Bourg</b>	Dept. of Civil & Environmental Engineering, Princeton University Dept. of Chemical & Biological Engineering, Princeton University Dept. of Civil & Environmental Engineering, Princeton University	Hossein Montazerian	Emma Davoodi	Chair: Emma Davoodi
91	Wave propagation in porous media 1	Rm 6500	Oct-8	10:55-11:20	Effect of viscosity on wave propagation: poroelasticity versus viscoelasticity	<b>Boris Gurevich</b>	<b>Boris Gurevich</b>	Curtin University	Stas Glubokovskikh	Yury Podladchikov	Chair: Stas Glubokovskikh
92	Computational poromechanics 3	Rm 6613	Oct-9	10:30-10:55	Multiscale aggregation of smectite nanoparticles: linking microstructure, dynamics, and coupled properties	<b>Xiaojin Zheng</b> Ian Bourg	<b>Xiaojin Zheng</b>	Princeton University	Ian Bourg	Hongkyu Yoon	Chair: Ian Bourg
93	Pore-Scale Dynamics in Porous Media 1	Rm 6500	Oct-9	11:45-12:10	The effect of gas bubbles on the low-frequency poroelastic response of rocks	<b>Nicola Tisato</b> Isabelle Lambert	<b>Nicola Tisato</b>	The University of Texas at Austin	Yashar, Ruby, Bo		Chair:
94	Computational poromechanics 5	Rm 6613	Oct-10	10:15-10:40	Leveraging stochastic simulations at the pore scale to predict permeability variations during precipitation process	<b>Zi Wang</b> Tapan Mukerji	<b>Zi Wang</b>	Stanford University	Hongkyu Yoon	if convener#1 is not assigned, Chair: Hongkyu Yoon	
95	Pore-Scale Dynamics in Porous Media 4	Rm 6500	Oct-10	12:00-12:25	Influence of Extraction Method and Pressure on Pore Solution Chemistry in Cement Paste	<b>Aagya Dahal</b> Kay Wille Yifei Wang	<b>Aagya Dahal</b>	University of Connecticut	Yashar, Ruby, Bo		Chair:
96	Computational poromechanics 6	Rm 6613	Oct-10	11:10-11:35	3D GPU Simulation of Coupled Poromechanics and Two-Phase Flow	<b>Yury Alkhimenkov</b> Ruben Juanes	<b>Yury Alkhimenkov</b>	University of Lanne Massachusetts Institute of Technology (MIT)	Hongkyu Yoon	if convener#1 is not assigned, Chair: Hongkyu Yoon	
97	Computational poromechanics 6	Rm 6613	Oct-10	11:35-12:00	GPU-Accelerated Simulation of Coupled Elastic and Hydraulic Behavior in Fractured and Porous Rocks from Digital Images	<b>Yury Alkhimenkov</b>	<b>Yury Alkhimenkov</b>	University of Lanne	Hongkyu Yoon	if convener#1 is not assigned, Chair: Hongkyu Yoon	
98	Wave propagation in porous media 4	Rm 5614	Oct-9	3:35-4:00	Modelling viscoelastic porosity wave/ focused fluid flow in the subsurface: its controlling factors	Lawrence Hongliang Wang <b>Viktoriya Yarushina</b>	<b>Viktoriya Yarushina</b>	Institute for energy technology			Chair: Weitao Sun

ID	Session	Room	Date	Time	Title	Author(s)	Presenter	Organization	Convener 1	Convener 2	Notes
99	Poster*	Event: The Biot Mixer: Posters, People, and Pours (P <sup>3</sup> )	Oct-9	6:30 pm – 8:30 pm	Modeling the Impact of Microplasticity on Nonlinear Attenuation of Compressional and Shear Waves	Maxim Yakovlev Alexander Semykin <b>Viktoriya Yarushina</b>	<b>Viktoriya Yarushina</b>	Lomonosov Moscow State University			Chair: Weitao Sun
100	Experimental poromechanics 2	Rm 5610	Oct-9	4:00-4:25 pm	Hydrate-bearing sediments: visco-plastic behavior	<b>Alejandro Cardona</b> Peter Flemings	<b>Alejandro Cardona</b>	University of Texas at Austin			Chair: Eric Hintsala
101	Geological systems 2	Rm 5614	Oct-8	3:50-4:15	A multifamily mechanical framework for non-allocated dissolution and precipitation in porous media	<b>Yifan Yang</b> Giuseppe Buscarnera	<b>Yifan Yang</b>	Northwestern University	Shahrazad Roshankhah	Jihoon Kim	Chair: Shahrazad Roshankhah
102	Geological systems 2	Rm 5614	Oct-8	4:15-4:40	Evaluating Matrix–Fracture Interactions in CO <sub>2</sub> Geological Storage Using Dimensional Analyses and Hydro-Mechanical FEM-DEM Simulations	Shahrazad Roshankhah <b>Shivesh Shandilaya</b>	<b>Shivesh Shandilaya</b>	University of Utah	Shahrazad Roshankhah	Jihoon Kim	Chair: Shahrazad Roshankhah
103	Computational poromechanics 3	Rm 6613	Oct-9	10:55-11:20	Drying shrinkage of cement-based materials: study of water sorption and surface stresses in C-S-H by molecular simulations	<b>Jingyi LENG</b> Laurent Brochard Matthieu Vandamme Patrick Dangla	<b>Jingyi LENG</b>	ENPC \ Institut Polytechnique de Paris, Université Gustave Eiffel, CNRS ENPC \ Institut Polytechnique de Paris, Université Gustave Eiffel, CNRS Laboratoire Navier (ENPC \ Institut Polytechnique de Paris, Université Gustave Eiffel, CNRS) Laboratoire Navier (ENPC \ Institut Polytechnique de Paris, Université Gustave Eiffel, CNRS)	Ian Bourg	Hongkyu Yoon	Chair: Ian Bourg
104	Geological systems 2	Rm 5614	Oct-8	4:40-5:05	Numerical Investigation of Particle Shape Effects on Coupled Hydromechanical Behavior in Unbreakable Particulate Packs	<b>Ayat Alasadi</b> Shahrazad Roshankhah	<b>Ayat Alasadi</b>	University of Utah	Shahrazad Roshankhah	Jihoon Kim	Chair: Shahrazad Roshankhah
105	Pore-Scale Dynamics in Porous Media 4	Rm 6500	Oct-10	11:10-11:35	Surfactant transport in a thin water film covering a charged surface	Wengqian Zhang <b>Bo Guo</b>	<b>Bo Guo</b>	University of Arizona	Yashar, Ruby, Bo		Chair:
106	Wave propagation in porous media 2	Rm 6500	Oct-8	3:50-4:15	Low-frequency lab measurements: what have we learned?	<b>Serhii Lozovyi</b>	<b>Serhii Lozovyi</b>	SINTEF			Chair: Kami Mohammadi

ID	Session	Room	Date	Time	Title	Author(s)	Presenter	Organization	Convener 1	Convener 2	Notes
107	Soft mater and novel porous media 3	Rm 5606	Oct-9	11:45-12:10	Capillary entry pressure of a hydrogel packing	Callum Cuttle <b>Chris MacMinn</b> Hangkai Wei Oliver Paulin	<b>Chris MacMinn</b>	University of Oxford University of Oxford University of Oxford Max Planck Institute for Dynamics & Self-Organization	Christopher Macminn	Jeremy Cho	Chair: Christopher Macminn
108	Wave propagation in porous media 3	Rm 5614	Oct-9	11:45-12:10	Fluid Injection-Induced Seismic Signature of Naturally Fractured Rocks with Permeable and Impermeable Matrix	<b>Kami Mohammadi</b> Shahrzad Roshankhah Shivesh Shandilaya	<b>Kami Mohammadi</b>	University of Utah			Chair: Boris Gurevich
109	Pore-Scale Dynamics in Porous Media 3	Rm 6500	Oct-10	9:50-10:15	Electrochemical flow through charge-patterned wavy nanochannels	<b>Thomas Peteresen</b> Felipe P.J. de Barros Jinwoo Im Pouya Golchin	<b>Thomas Peteresen</b>	Sonny Astani Dept. of Civil & Environmental Engineering, University of Southern California, Los Angeles Dept. of Aerospace & Mechanical Engineering, University of Southern California, Los Angeles	Yashar, Ruby, Bo		
110	Computational Poromechanics I	Rm 6613	Oct-8	11:45-12:10	Modeling Cohesive Sediment Erosion and Transport Using a Darcy-Brinkman-Biot Framework	<b>Mitchell Jans</b> Ian Bourg	<b>Mitchell Jans</b>	Princeton University	Beatrice Riviere	Ian Bourg	Chair: Beatrice Riviere
112	Pore-Scale Dynamics in Porous Media 4	Rm 6500	Oct-10	12:25-12:50	An Integrated Approach to Derive Relative Permeability from Capillary Pressure	<b>Nathan Moodie</b> Brian McPherson	<b>Nathan Moodie</b>	University of Utah	Yashar, Ruby, Bo		Chair:
113	Geological systems 2	Rm 5614	Oct-8	5:05-5:30	Pore pressure inhibits clustering of induced earthquakes in Western Canada	<b>Bing Q. Li</b>	<b>Bing Q. Li</b>	University of Western Ontario	Shahrzad Roshankhah	Jihoon Kim	Chair: Shahrzad Roshankhah
114	Wave propagation in porous media 1	Rm 6500	Oct-8	11:20-11:45	Numerical Evaluation of Gassmann's and Brown & Korringa (1975) Equations in 3D Settings	<b>Yury Alkhimenkov</b>	<b>Yury Alkhimenkov</b>	University of Lanne	Stas Glubokovskikh	Yury Podladchikov	Chair: Stas Glubokovskikh
115	Computational poromechanics 6	Rm 6613	Oct-10	12:00-12:25	Accelerated Pseudo-Transient Method for Large-Scale Poromechanical Simulations: Unified Framework for Elasticity, Viscoelasticity, and Quasi-Static Biot Poroelasticity	<b>Yury Alkhimenkov</b>	<b>Yury Alkhimenkov</b>	University of Lanne	Hongkyu Yoon	if convener#1 is not assigned, Chair: Hongkyu Yoon	
117	Computational poromechanics 2	Rm 6613	Oct-8	4:15-4:40	Mathematics of Sea Ice as a Porous Composite	<b>Kenneth Golden</b>	<b>Kenneth Golden</b>	Dept. of Mathematics, University of Utah	Beatrice Riviere	Ian Bourg	Chair: Beatrice Riviere



ID	Session	Room	Date	Time	Title	Author(s)	Presenter	Organization	Convener 1	Convener 2	Notes
119	Experimental poromechanics 2	Rm 5610	Oct-9	3:35-4:00	Recent Advancements in Electrical Resistivity Tomography for Monitoring High-Stress Processes in Crystalline Rock	Chuanyao Zhong Glenn Hammond Jeff Burghardt Jumanah Al Kubaisy Kevin Rosso Piyoosh Jaysaval Satish Karra <b>Tim Johnson</b>	<b>Tim Johnson</b>	Pacific Northwest National Laboratory			Chair: Eric Hintsala
121	Pore-Scale Dynamics in Porous Media 3	Rm 6500	Oct-10	9:25-9:50	Pore network dynamics driving colloid transport in porous media: Interception history and attachment efficiency	William Johnson Diogo Bolster <b>Luis Ullauri</b> Bashar Al-Zghoul	<b>Luis Ullauri</b>	University of Utah	Yashar, Ruby, Bo		
122	Computational poromechanics 6	Rm 6613	Oct-10	12:25-12:50	Image registration of 2D optical thin sections in a 3D porous medium: Application to a Berea sandstone digital rock image	<b>Jaehong Chung</b> Wei Cai Tapan Mukerji	<b>Jaehong Chung</b>	Stanford University	Hongkyu Yoon	if convener#1 is not assigned, Chair: Hongkyu Yoon	
123	Pore-Scale Dynamics in Porous Media 4	Rm 6500	Oct-10	11:35-12:00	Electrokinetic and Water–Mineral Interaction Effects on Nanocapillary Water Flow	<b>Abdullah Cihan</b> Pramod Bhuvankar	<b>Abdullah Cihan</b>	Lawrence Berkeley National Lab	Yashar, Ruby, Bo		Chair:
124	Wave propagation in porous media 2	Rm 6500	Oct-8	4:40-5:05	Wave-Induced Fluid Flow as a Geophysical Probe for Hydrogen Storage	<b>Stanislav Glubokovskikh</b> Seiji Nakagawa Mingfei Chen Romy Chakraborty Harry Lisabeth	<b>Stanislav Glubokovskikh</b>	Lawrence Berkeley National Laboratory			Chair: Kami Mohammadi
125	Computational poromechanics 3	Rm 6613	Oct-9	11:20-11:45	Dynamics of electrolytes in nanopores under electric field	Jerry Owusu Kevin Rosso Russ Detwiler <b>Mohammad Javad Abdolhosseini Qomi</b>	<b>Mohammad Javad Abdolhosseini Qomi</b>	UC Irvine PNNL UC Irvine UC Irvine	Ian Bourg	Hongkyu Yoon	Chair: Ian Bourg
127	Computational poromechanics 2	Rm 6613	Oct-8	4:40-5:05	Porous Models of Thrombosis for Applications to Leaflet Thrombosis	<b>Aaron Barrett</b> Boyce Griffith Aaron Fogelson	<b>Aaron Barrett</b>	University of Utah University of North Carolina, Chapel Hill University of Utah	Beatrice Riviere	Ian Bourg	Chair: Beatrice Riviere
130	Poster*	Event: The Biot Mixer: Posters, People, and Pours (P³)	Oct-9	6:30 – 8:30	Quantifying Compaction Viscosity During Compaction of Partially Molten Polycrystalline Ice: Instrument Development and Numerical Modelling	Nariman Mahabadi	<b>Timothy Xiong</b>	University of Texas at Austin University of Texas at Austin University of Texas at Austin University of Texas at Austin Columbia University Columbia University			
132	Fracture in porous media 1	Rm 5610	Oct-10	9:00-9:25	A thermo-flow-mechanics-fracture model coupling a phase-field interface approach and thermo-fluid-structure interaction	Henry von Wahl Sanghyun Lee <b>Thomas Wick</b>	<b>Thomas Wick</b>	Florida State University Leibniz Universität Hannover			



ID	Session	Room	Date	Time	Title	Author(s)	Presenter	Organization	Convener 1	Convener 2	Notes
134	Geological systems 4	Rm 5606	Oct-9	3:35-4:00	Earthquake Cycle Simulation in Poro-Viscoplastic Media: A Coupled Framework for Fault-Fluid-Inelasticity Interactions	<b>Ahmed Elbanna</b>	<b>Ahmed Elbanna</b>	University of Southern California	Shahrazad Roshankhah	Jihoon Kim	Chair: Ahmed Elbanna
135	Poster*	Event: The Biot Mixer: Posters, People, and Pours (P <sup>3</sup> )	Oct-9	6:30 – 8:30	Numerical Investigation of Particle Shape and Particle Size Distribution Effects on The Mechanical Behavior in Unbreakable Particulate Packs	<b>Ayat Alasadi</b> Shahrazad Roshankhah	<b>Ayat Alasadi</b>	University of Utah			
136	Poster*	Event: The Biot Mixer: Posters, People, and Pours (P <sup>3</sup> )	Oct-9	6:30 – 8:30	Matrix–Hydraulic Fracture-Natural Fracture Interactions in EGS Reservoirs and CO2 Disposal Formations: Dimensional Analyses and Hydro-Mechanical FDEM Simulations	Shahrazad Roshankhah <b>Shivesh Shandilaya</b>	<b>Shivesh Shandilaya</b>	University of Utah			
137	Poster*	Event: The Biot Mixer: Posters, People, and Pours (P <sup>3</sup> )	Oct-9	6:30 – 8:30	Investigation of PCM-mortar under complex environment	<b>Mohamed Morsi</b>	<b>Mohamed Morsi</b>	University of Utah			
139	Wave propogation in porous media 5	Rm 5614	Oct-10	10:15-10:40	Does pre-existing differential pressure have an impact on poroelasticity equations?	<b>Lynn Schreyer</b> Ryan Whitehead Pratap Sahay	<b>Lynn Schreyer</b>	Washington State University UES, a BlueHalo company Ensenada (CICESE)			
140	Poster*	Event: The Biot Mixer: Posters, People, and Pours (P <sup>3</sup> )	Oct-9	6:30 – 8:30	Nanoindentation Study of Granite Under Elevated Temperatures and Environmental Conditions	<b>Ozan Altuntas</b>	<b>Ozan Altuntas</b>	University of Utah			
141	Poster*	Event: The Biot Mixer: Posters, People, and Pours (P <sup>3</sup> )	Oct-9	6:30 – 8:30	Uncovering Structure–Property Relationships in Porous Materials via Data-Driven Methods	<b>Achyut Dhar</b>	<b>Achyut Dhar</b>	University of Utah			
142	Poster*	Event: The Biot Mixer: Posters, People, and Pours (P <sup>3</sup> )	Oct-9	6:30 – 8:30	The Effect of Microscale Pore Morphology on Fracture Behavior	<b>Ryan Nielsen</b>	<b>Ryan Nielsen</b>	University of Utah			

ID	Session	Room	Date	Time	Title	Author(s)	Presenter	Organization	Convener 1	Convener 2	Notes
150	Soft mater and novel porous media 2	Rm 5610	Oct-8	4:15-4:40	Micro- and Nano-Technology Approaches to Design Bioadhesive Hydrogels for Sutureless Wound Closure	Hossein Montazerian	Hossein Montazerian	University of Utah			
151	Soft mater and novel porous media 1	Rm 5610	Oct-8	10:55-11:20	Additive Manufacturing of Architected Structures for Healthcare Applications	Emma Davoodi	Emma Davoodi	University of Utah			

\*Poster Sessions will be held on 10/9, 6:30-8:30 at the BIOT Mixer