

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	Mostafa Mobasher	Mostafa Mobasher	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	Chloé Arson Lingfu Liu Zahera Jabeen	Chloé Arson	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	Andrea Franceschini Daniele Moretto Eduardo Castro Massimiliano Ferronato	Andrea Franceschini	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 Sanghyun Lee Son-Young Yi	Sanghyun Lee	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 Hyoung Suk Suh	Hyoung Suk Suh	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	Beatrice Riviere	Beatrice Riviere	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	Hoai Thanh Nguyen Pania Newell	Hoai Thanh Nguyen	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	ANTON SMOLYANY	ANTON SMOLYANY	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 ₄ Sorption-Induced Deformed Coal Matrix: Insights from Stepwise Hybrid GCMC/MD Simulations	Zhehui Jin Quanlin Yang	Zhehui Jin	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	Junning Liu Xiaoqing Fu	Junning Liu	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	Giancarlo Ventura Ronaldo Borja	Giancarlo Ventura	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	J. Jackson Baglino Adrian Moure Xiaoqing Fu	J. Jackson Baglino	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	Fubin Chen Zhaoyun Zong Xingyao Yin Jiayun Li	Fubin Chen	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	Yashar Mehmani Sabit Mahmood Khan	Yashar Mehmani	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	Tahmid Rakin Siddiqui Yashar Mehmani	Tahmid Rakin Siddiqui	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	Wei Li Akhil Kolanti David Sprouster Zijie Xu	Wei Li	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	Raheleh Ravanfar	Raheleh Ravanfar	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	Fan Fei Yunxing Lu Andrew P. Bungler Matteo Cusini	Fan Fei	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	Aruzhan Tleubek Arvand Vedadi Amin Hamed Mashhadzadeh Salah A. Faroughi	Aruzhan Tleubek	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 Aruzhan Tleubek Salah A. Faroughi	Aruzhan Tleubek	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 Wettable Media	Arvand Vedadi Salah Faroughi	Arvand Vedadi	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	Aiqing Xu Kimberly E Kurtis	Aiqing Xu	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	Nicholas Baker Farinaz Mostajeran Salah A. Faroughi	Nicholas Baker	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	Weitao Sun	Weitao Sun	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	Pinbo Ding Feng Zhang Xiang-yang Li	Pinbo Ding	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	Yaofa Li Md Ahsan Habib Bo Guo Diego Armstrong	Yaofa Li	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	Jeong-Tae Kim	Jeong-Tae Kim	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	Naina Deb Arindam Dey Budhaditya Hazra	Naina Deb	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	Viktoriya Yarushina	Viktoriya Yarushina	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?	Wubing Deng Li-Yun Fu	Wubing Deng	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	Piyush Pradhan Pierre Gentine Shaina Kelly	Piyush Pradhan	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	Mohammadali Behboodi Yida Zhang	Mohammadali Behboodi	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	Mina Karimi Kaushik Bhattacharya	Mina Karimi	California Institute of Technology	Hongkyu Yoon	if convener#1 is not assigned, Chair: Hongkyu Yoon	

ID	Session	Room	Date	Time	Title	Author(s)	Presenter	Organization	Convener 1	Convener 2	Notes
69	Soft mater and novel porous media 3	Rm 5606	Oct-9	10:55-11:20	Poroelectric diffusion through hydrogel membranes for fast atmospheric water harvesting	Yiwei Gao H. Jeremy Cho Areianna Eason Yihong Zhao	H. Jeremy Cho	WAVR Technologies, Inc University of Nevada, Las Vegas University of Nevada, Las Vegas WAVR Technologies, Inc			Chair: Christopher Macminn
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 Yury Podladchikov	Yury Podladchikov	University of Lanne, Switzerl&			Chair: Yury Alkhimenkov
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	Cate Tilley Casey Ruplinger Daniel Worley Hiroko Kitajima Jacob Tristan	Cate Tilley		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	Dinesh Katti Haneesh Jasuja Kalpana Katti Preetham Ravi Sharad Jaswandkar	Dinesh Katti	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 Hongkyu Yoon Pania Newell	Hongkyu Yoon	The University of Utah S&ia National Laboratories The University of Utah	Shahrazad 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	Arina Korneva Denis Kucherenko	Arina Korneva	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	Ivan Utkin Andrey Afanasyev	Ivan Utkin	Laboratory of Hydraulics, Hydrology & Glaciology VAW, ETH Zurich, Zurich, Switzerl& (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 Viktoriya Yarushina	Viktoriya Yarushina	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 Shubhra Goel	Shubra Goel	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 Anthony Wendel David Diaz Jason Nycz Randolf Kofman	Anthony Wendel	Purdue University	Shahrazad Roshankhah	Jihoon Kim	Chair: Jihoon Kim

ID	Session	Room	Date	Time	Title	Author(s)	Presenter	Organization	Convener 1	Convener 2	Notes
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	Lyudmila Khakimova	Lyudmila Khakimova	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	Sajjad Raeisi	Sajjad Raeisi	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	H. Jeremy Cho Amir Kashani	H. Jeremy Cho	University of Nevada, Las Vegas	Christopher Macminn	Jeremy Cho	Chair: Christopher Macminn
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	Yury Alkhimenkov	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	Ian Bourg Francisco Carrillo Mitchell Jans	Ian Bourg	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	Boris Gurevich	Boris Gurevich	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	Xiaojin Zheng Ian Bourg	Xiaojin Zheng	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	Nicola Tisato Isabelle Lambert	Nicola Tisato	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	Zi Wang Tapan Mukerji	Zi Wang	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	Aagya Dahal Kay Wille Yifei Wang	Aagya Dahal	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	Yury Alkhimenkov Ruben Juanes	Yury Alkhimenkov	University of Lanne Massachusetts Institute of Technology (MIT)	Hongkyu Yoon	if convener#1 is not assigned, Chair: Hongkyu Yoon	

ID	Session	Room	Date	Time	Title	Author(s)	Presenter	Organization	Convener 1	Convener 2	Notes
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	Yury Alkhimenkov	Yury Alkhimenkov	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 Viktoriya Yarushina	Viktoriya Yarushina	Institute for energy technology			Chair: Weitao Sun
99	Poster*	Event: The Biot Mixer: Posters, People, and Pours (P³)	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 Viktoriya Yarushina	Viktoriya Yarushina	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	Alejandro Cardona Peter Flemings	Alejandro Cardona	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-located dissolution and precipitation in porous media	Yifan Yang Giuseppe Buscarnera	Yifan Yang	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 ₂ Geological Storage Using Dimensional Analyses and Hydro-Mechanical FEM-DEM Simulations	Shahrazad Roshankhah Shivesh Shandilaya	Shivesh Shandilaya	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	Jingyi LENG Laurent Brochard Matthieu Vandamme Patrick Dangla	Jingyi LENG	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	Ayat Alasadi Shahrazad Roshankhah	Ayat Alasadi	University of Utah	Shahrazad Roshankhah	Jihoon Kim	Chair: Shahrazad Roshankhah

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

ID	Session	Room	Date	Time	Title	Author(s)	Presenter	Organization	Convener 1	Convener 2	Notes
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	Wenqian Zhang Bo Guo	Bo Guo	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?	Serhii Lozovyi	Serhii Lozovyi	SINTEF			Chair: Kami Mohammadi
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 Chris MacMinn Hangkai Wei Oliver Paulin	Chris MacMinn	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	Kami Mohammadi Shahrazad Roshankhah Shivesh Shandilaya	Kami Mohammadi	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	Thomas Peteresen Felipe P.J. de Barros Jinwoo Im Pouya Golchin	Thomas Peteresen	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	Mitchell Jans Ian Bourg	Mitchell Jans	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	Nathan Moodie Brian McPherson	Nathan Moodie	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	Bing Q. Li	Bing Q. Li	University of Western Ontario	Shahrazad Roshankhah	Jihoon Kim	Chair: Shahrazad 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	Yury Alkhimenkov	Yury Alkhimenkov	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	Yury Alkhimenkov	Yury Alkhimenkov	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	Kenneth Golden	Kenneth Golden	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
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 Luis Ullauri Bashar Al-Zghoul	Luis Ullauri	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	Jaehong Chung Wei Cai Tapan Mukerji	Jaehong Chung	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	Abdullah Cihan Pramod Bhuvankar	Abdullah Cihan	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	Stanislav Glubokovskikh Seiji Nakagawa Mingfei Chen Romy Chakraborty Harry Lisabeth	Stanislav Glubokovskikh	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 Mohammad Javad Abdolhosseini Qomi	Mohammad Javad Abdolhosseini Qomi	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	Aaron Barrett Boyce Griffith Aaron Fogelson	Aaron Barrett	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	Timothy Xiong	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 Thomas Wick	Thomas Wick	Florida State University Leibniz Universität Hannover			
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	Ahmed Elbanna Amr Ibrahim	Amr Ibrahim	University of Southern California	Shahrazad Roshankhah	Jihoon Kim	Chair: Ahmed Elbana

ID	Session	Room	Date	Time	Title	Author(s)	Presenter	Organization	Convener 1	Convener 2	Notes
135	Poster*	Event: The Biot Mixer: Posters, People, and Pours (P ³)	Oct-9	6:30 – 8:30	Numerical Investigation of Particle Shape and Particle Size Distribution Effects on The Mechanical Behavior in Unbreakable Particulate Packs	Ayat Alasadi Shahrzad Roshankhah	Ayat Alasadi	University of Utah			
136	Poster*	Event: The Biot Mixer: Posters, People, and Pours (P ³)	Oct-9	6:30 – 8:30	Matrix–Hydraulic Fracture-Natural Fracture Interactions in EGS Reservoirs and CO ₂ Disposal Formations: Dimensional Analyses and Hydro-Mechanical FDEM Simulations	Shahrzad Roshankhah Shivesh Shandilaya	Shivesh Shandilaya	University of Utah			
137	Poster*	Event: The Biot Mixer: Posters, People, and Pours (P ³)	Oct-9	6:30 – 8:30	Investigation of PCM-mortar under complex environment	Mohamed Morsi	Mohamed Morsi	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?	Lynn Schreyer Ryan Whitehead Pratap Sahay	Lynn Schreyer	Washington State University UES, a BlueHalo company Ensenada (CICESE)			
140	Poster*	Event: The Biot Mixer: Posters, People, and Pours (P ³)	Oct-9	6:30 – 8:30	Nanoindentation Study of Granite Under Elevated Temperatures and Environmental Conditions	Ozan Altuntas	Ozan Altuntas	University of Utah			
141	Poster*	Event: The Biot Mixer: Posters, People, and Pours (P ³)	Oct-9	6:30 – 8:30	Uncovering Structure–Property Relationships in Porous Materials via Data-Driven Methods	Achyut Dhar	Achyut Dhar	University of Utah			
142	Poster*	Event: The Biot Mixer: Posters, People, and Pours (P ³)	Oct-9	6:30 – 8:30	The Effect of Microscale Pore Morphology on Fracture Behavior	Ryan Nielsen	Ryan Nielsen	University of Utah			
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			

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

ID	Session	Room	Date	Time	Title	Author(s)	Presenter	Organization	Convener 1	Convener 2	Notes
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			
155	Poster*	Event: The Biot Mixer: Posters, People, and Pours (P³)	Oct-9	6:30 – 8:30	Ionic PFAS transport along thin water films in soils	Bo Guo	Bo Guo	University of Arizona			

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