



# InterPore2024

## Monday, 13 May 2024

### MS09: 1.1 (11:25 - 12:25)

time	[id] title	presenter
11:25	[755] Direct pore-scale modeling of foam flow through 3D rough fractures	MA, Xuesong
11:40	[46] Numerical simulation of two-phase flows in digital core samples with underresolved porosity	LISITSA, Vadim
11:55	[782] Volume of Fluid based study of the three phase dynamic contact line in wetting of the nanometric rough micro-channels	Dr HAN, Tianyang

### MS09: 1.2 (13:25 - 14:55)

time	[id] title	presenter
13:40	[913] Volume of Fluid based study of the three phase dynamic contact line on rough surfaces relevant for Underground Hydrogen Storage	VAN ROOIJEN, Willemijn
13:55	[604] Simulation of boundaries and parameters variations of natural gas hydrate in thermofluidic dissolution based on multi-field coupling under pore-scale modeling	LI, Zhengyi
14:10	[291] Identification and assessment of three-phase boundaries in porous electrodes of solid-oxide electrolysis cells based on a 3D microstructure model	CHEN, Yuzhu
14:25	[704] Digital Porous Material Analysis with Multiscale REV	MAES, Julien
14:40	[117] Digital rock reconstruction considering high stress	WANG, Chunqi

### MS09: 1.3 (17:00 - 18:00)

time	[id] title	presenter
17:00	[78] Multiscale Generalized Network Modeling of Carbonates with Sub-Resolution Porosity	BIJELJIC, Branko
17:15	[681] The interplay between temperature evolution, species distribution, and microstructure dynamic in a calcining porous particle	LU, Xiang
17:30	[34] Quantification of geometric and flow characteristics for CO <sub>2</sub> storage at pore-scale using a DC-GAN based digital experiment approach	Ms ZHANG, Yifan
17:45	[388] The numerical simulation of two-phase flow in multi-mineral shale digital rock cores	WEI, Guangyuan

# Tuesday, 14 May 2024

## MS09: 2.1 (10:55 - 11:55)

time	[id] title	presenter
10:55	[45] Micro-Continuum Modeling of Mineral Nucleation and Precipitation at Pore-Scale	YANG, Fengchang
11:10	[17] Investigate the effect of pore heterogeneity on elastic wave velocity evolution under mineral dissolution process	ZHANG, Yutian
11:25	[579] A Benchmark Study of Pore-scale Multiphase Flow in Pore-doublet: The Impacts of Hydrodynamics on Mineral Dissolution Reaction Rate	WANG, Xin
11:40	[826] Pore-scale multiphase reactive transport and CO2 mineralization capacity in vesicular basalts	SHEN, Tianxiao

## MS09: 2.3 (14:00 - 15:30)

time	[id] title	presenter
14:00	[353] The pinning dynamics of a non-wetting droplet penetrating a permeable substrate	XIE, Chiyu
14:15	[329] A thermodynamically consistent and conservative diffuse-interface model for two-phase flows in complex geometries	ZHAN, Chengjie
14:30	[467] Combined effect of pore geometry and wettability characteristics on entry capillary pressure	ZHOU, Tongke
14:45	[536] Lattice Boltzmann modeling of pore-scale fluid flow during wettability alteration-based enhanced oil recovery in marine porous carbonate reservoirs	Mr WANG, Daigang
15:00	[739] Effect of roughness in the fluid flow in porous media: based on random fields theory and 3D printing technology	WU, Yunlong
15:15	[148] Theory of nonwetting fluid snap-off in porous media under vibration	Mr LI, Jiajing

# Thursday, 16 May 2024

## MS09: 4.2 (11:50 - 12:50)

time	[id] title	presenter
11:50	[41] Pore scale characterization of dissolution process during CO <sub>2</sub> injection in sandstones: an simulation study	WANG, Jinlei
12:05	[239] Role of micro-fractures on displacement of immiscible fluids in fractured porous media: a pore-scale perspective	HE, Zhennan
12:20	[973] Motion of a viscous slug on heterogeneous surfaces	PRIMKULOV, Bauyrzhan
12:35	[468] Measuring (non)stationarity in porous media images and what it means for pore-scale simulations	GERKE, Kirill

## MS09: 4.3 (13:50 - 15:05)

time	[id] title	presenter
13:50	[162] Pore-scale Flow Simulation of CO <sub>2</sub> Sequestration in Deep Shale Based on Thermal-hydro-mechanical Coupled Model	LIU, Ziwei
14:05	[246] Regularization strategies to improve the numerical efficiency of a fully-implicit pore-network model	WU, Hanchuan
14:20	[272] An Improved MCMP Pseudopotential Model for Immiscible Fluids Flow in Porous Media	FENG, jingsen
14:35	[140] Pore-scale prediction of CH <sub>4</sub> -CO <sub>2</sub> competitive adsorption in nanoporous media coupling molecular simulation and machine learning acceleration	WANG, Han
14:50	[312] Multiphase Reactive Transport Modeling of CO <sub>2</sub> Dissolution in Geological Carbon Sequestration Using Lattice Boltzmann Simulations	XIE, Qiheng