InterPore2024

Monday, 13 May 2024

MS15: 1.1 (11:25 - 12:25)

time	[id] title	presenter
11:25	[67] Machine learning accelerated molecular simulation: Implications for oil and gas problems	Dr LIU, Jie
11:40	[187] CO2 Leakage Detection using Optimized Deep Learning	Dr HE, Xupeng
11:55	[592] Prediction of Upscaled Permeability of Digital Rock Cores Using Machine Learning Techniques	GUO, Yaotian
12:10	[82] Large Scale Efficient 3D Domain Transfer for Digital Images of Porous Materials using Pseudo-3D Architectures	TANG, Kunning

MS15: 1.2 (13:25 - 14:55)

time	[id] title	presenter
13:25	[205] Deep learning-assisted technology transition in natural hydrogen development	ZHANG, tao
13:40	[313] Multiparameter Inversion of Reservoirs Based on Deep Learning	WANG, Qian
13:55	[450] A Vision Transformer for Size-Agnostic Modelling of Two-Phase Drainage in Complex Porous Media Considering Wettability, Interfacial Tension, and Resolution	WU, Ping
14:10	[674] A neural network model with physics constraints for simulating CO2 storage in deep saline aquifers during and after injection	ZHAO, Mengjie
14:25	[880] 2D to 3D deep learning reconstruction of CO2 electroconversion Gas Diffusion Electrode : a validation study	BORISOCHEV, Georgy
14:40	[98] Deep Learning enhanced multiscale rock typing for digital core modeling	ORLOV, Denis

MS15: 1.3 (17:00 - 18:00)

time	[id] title	presenter
17:00	[59] Application of Diffusion Models to Generate Multiphase Fluid Pore-Scale Images	ZHU, Linqi
17:15	[64] Predicting ultimate hydrogen production and residual volume during cyclic underground hydrogen storage in porous media using machine learning	MUSHABE, Raymond
17:30	[259] Efficient 3D Digital Rock Detail Reconstruction and Quality Enhancement with Super-Resolution Transformer	Mr XING, Zhihao
17:45	[1050] Integrating deterministic geological model with multimodal machine learning to predict shale productivity	HUI, Gang

Tuesday, 14 May 2024

MS15: 2.1 (10:55 - 11:55)

time	[id] title	presenter
10:55	[405] Stable Diffusion in Digital Rock Analysis: Applications, Challenges, and Future Prospects	MA, Yutian
11:10	[455] Optimizing Underground Hydrogen Storage through Surrogate Modeling: A CNN-LSTM-Attention Network Approach	Mr HAN, Zhilei
11:25	[319] Feasibility study of the inversion method for non-uniform hydrate saturation distribution based on ensemble Kalman filter algorithm	LIU, Yongge
11:40	[214] A Comprehensive Approach to In-Situ Stress Estimation in Subsurface Energy Structures using Numerical Simulation and Machine Learning	Dr MOHAMMADIAN, Erfan

MS15: 2.2 (12:00 - 13:00)

time	[id] title	presenter
12:00	[5] A deep learning enabled massive parallel simulator for porous media flow	Prof. ZHANG, Chensong
12:15	[57] Application of Machine Learning and Deep Learning Methods in Reservoir Development	Prof. ZHANG, Kai
12:30	[434] 3D Pore Segmentation and Pore-Scale Simulation by Deep Learning	LI, Haotian
12:45	[906] A multi-well deep learning model considering geological and engineering parameters for the long-term forecasting of shale gas production	DONG, Yilun

Wednesday, 15 May 2024

MS15: 3.1 **(10:55 - 11:55)**

time	[id] title	presenter
10:55	[87] Unsupervised resolution boosting of µCT scans integrated into a supervised convolutional network to predict 3D rock properties	Prof. SADEGHNEJAD, Saeid
11:10	[103] Deep learning for microstructure analysis of porous media from image augmentation, and multiscale fusion to image auto-segmentation	Dr LIU, Fugui
11:25	[298] Machine Learning Assisted Numerical simulation of Propylene Glycol-mixed Steam Enhanced Extraction in Unsaturated soils	CHEN, Zhixin
11:40	[785] Data Quality Assurance Metrics for Federated Machine Learning	CHANG, Bernard

Thursday, 16 May 2024

MS15: 4.1 (09:05 - 10:20)

time	[id] title	presenter
09:20	[227] Solving seepage equation using physics-informed residual network without labeled data	LV, Shuaijun
09:35	[574] Efficient Surrogate Modeling of Subsurface Flow in Porous Media Using Transfer Learning with Multifidelity Data	Mr SUN, Wenyue
09:50	[1053] Super-resolution imaging of multiphase fluid distributions in porous media using deep learning	MA, Zhuangzhuang

MS15: 4.2 (11:50 - 12:50)

time	[id] title	presenter
11:50	[425] Anchored Physics-Informed Neural Network for Fluid Flow Simulation in Heterogeneous Porous Media	LIN, Jingqi
12:05	[631] A Transformer-based framework for brine-gas interfacial tension prediction: Implications for H2, CH4 and CO2 geo-storage	SONG, Tianru
12:20	[901] Machine learning algorithms for predicting breakthrough curves for pore scale reactive flow in porous media and application to parameter identification	Prof. ILIEV, Oleg
12:35	[981] Effect discussion and workflow establishment of machine learning algorithm in logging classification: A case study from the classification of sepiolite bearing strata in the first member of Maokou Formation	□, □