

POSTCONVENTION WORKSHOP

W-8: Machine Learning in Accelerating Energy Transition and Enabling Low-carbon Economy

George R. Brown Convention Center, Room 362BCEF

Start	Stop	Presentation	Speaker	Affiliation
8:30 AM	8:35 AM	Introduction	Haibin Di	Schlumberger
		Session 1: Machine Learning for Clean Energy		
8:35 AM	9:05 AM	A Dual-model Approach for Horizon Extraction on 2D Seismic Data – Applied to Offshore Wind Farm Site Characterization	Tao Zhao	Schlumberger
9:05 AM	9:35 AM	Data-driven Approaches to Mineral Prospectivity Modeling From Deposit to National Scales	Jiajia Sun	University of Houston
9:35 AM	9:55 AM	Q&A		
9:55 AM	10:10 AM	Coffee Break		
10:10 AM	10:40 AM	SmartTensors: Unsupervised and Physics-Informed Machine Learning Framework for the Geoscience Applications	Monty Vesselinov	SmartTensors
10:40 AM	11:10 AM	Identifying Geothermal “Sweet-spots” Using Pre-stack Inversion and Machine Learning	Brian Russell	GeoSoftware
11:10 AM	11:40 AM	Characterization of Discrete Fracture Network Using Physics Guided Machine Learning in Geothermal and Geological Carbon Storage Sites	Yingcai Zheng	University of Houston
11:40 AM	12:00 PM	Q&A		
12:00 PM	1:30 PM	Lunch Break		
		Session 2: Machine Learning for CCS		
1:30 PM	2:00 PM	Machine Learning-guided CO ₂ Reservoir Prediction in a Large 3D Survey with Sparse Wells: A GOM Example	Hongliu Zeng	University of Texas at Austin
2:00 PM	2:30 PM	Deep-Learning Multiphysics Imaging and Uncertainty Estimates of Geological Carbon Storage	Evan Schankee Um	LBNL
2:30 PM	2:50 PM	Q&A		
2:50 PM	3:20 PM	Coffee Break		
3:20 PM	3:50 PM	Deep-learning-based Early-stage CO ₂ Leakage Detection Using Sparse Seismic Data	Kai Gao	LANL
3:50 PM	4:20 PM	U-FNO -- An Enhanced Fourier Neural Operator-based Deep-learning Model for Multiphase Flow	Gege Wen	Stanford University
4:20 PM	5:00 PM	Q&A		