

# POSTCONVENTION WORKSHOP

## W-11: Machine Learning in Geosciences in the Age of Generative AI

George R. Brown Convention Center, Room 351B

Start	Stop	Presentation	Speaker	Affiliation
8:30 AM	8:35 AM	Introduction	Haibin Di	SLB
		Session 1: Geosciences in the age of Generative AI		
8:35 AM	8:50 AM	Data oasis to AI enhanced vistas: The future of GenAI geoscience	Leigh Truelove	SLB
8:50 AM	9:05 AM	Beyond generative AI: Leveraging physics-informed machine learning and data-centric approaches for accelerated subsurface characterization and monitoring	Pandu Devarakota	Shell
9:05 AM	9:20 AM	In search of impactful applications of deep learning to seismic	Anatoly Baumstein	ExxonMobil
9:20 AM	9:35 AM	Why we need foundation models: "Do we just need foundation model"	Arvind Sharma	SLB
9:35 AM	10:05 AM	Panel Discussion		
10:05 AM	10:30 AM	Coffee Break		
		Session 2: Seismic Foundation Model		
10:30 AM	10:45 AM	A review of foundation models for seismic data processing	Mario Ruben Fernandez	ITWM
10:45 AM	11:00 AM	Seismic foundation models: Scale, tune, generalize	Alejandro Valenciano	TGS
11:00 AM	11:15 AM	Geological Everything Model (GEM) 3D: A promptable foundation model for unified and zero-Shot subsurface modeling	Xinming Wu	USTC
11:15 AM	11:30 AM	Customizing VLMs for seismic interpretation: Challenges and recent advancements	Anatoly Aseev	SLB
11:30 AM	12:00 PM	Panel Discussion		
12:00 PM	1:30 PM	Lunch		
		Session 3: Generative & physics-informed learning		
1:30 PM	1:45 PM	Velocity downward continuation through generative models	Tariq Alkhalifah	KAUST
1:45 PM	2:00 PM	Generative AI as a tool for geomodelling and subsurface decision optimization	Saleh Nasser	Aramco
2:00 PM	2:15 PM	Advancing seismic monitoring with operator learning	Hongyu Sun	UTEP
2:15 PM	2:30 PM	ML-FWI with Arbitrary Starting Models	Jie Zhang	USTC
2:30 PM	3:00 PM	Panel Discussion		

3:00 PM	3:30 PM	Coffee Break		
		Session 4: Subsurface LLM		
3:30 PM	3:45 PM	GeoGPT: An open LLM system for geo-scientists	Hongyang Chen	Zhejiang Lab
3:45 PM	4:00 PM	Generative AI for energy and geoscience workflows	Yingwei Yu	AWS
4:00 PM	4:15 PM	Agentic FWI	Vladimir Kazei	Aramco
4:15 PM	4:30 PM	Evaluation of embedding-based and generative methods for LLM-driven document classification: opportunities and challenges	Rong Lu	Viridien
4:30 PM	5:00 PM	Panel Discussion		