

2026 SEG 6th International Workshop on Mathematical Geophysics Beijing · China Meeting Schedule		
17 September 2026, Thursday		
Opening Ceremony Moderator:		
08:30-08:35	Opening Remarks-	
08:35-08:40	Opening Remarks-	
08:40-08:45	Opening Remarks-	
Session 1: Keynote Speaker & Invited Speaker Session Session Chair:		
Time	Title	Speaker
08:45-09:10	Invited Talks 1:	
09:10-09:35	Invited Talks 2:	
09:35-10:00	Invited Talks 3:	
10:00-10:20	Group Photo & Coffee Break	
10:20-10:45	Invited Talks 4:	
10:45-11:10	Invited Talks 5:	
11:10-11:35	Invited Talks 6:	
11:35-12:00	Invited Talks 7:	
12:00-13:00	Lunch	
17 September 2026, Thursday		
Session 2: Keynote Speaker & Invited Speaker Session Session Chair:		
14:00-14:25	Invited Talks 8:	
14:25-14:50	Invited Talks 9:	
14:50-15:15	Invited Talks 10:	
15:15-15:40	Invited Talks 11:	
15:40-16:00	Coffee Break & Poster Session	
16:00-16:25	Invited Talks 12:	
16:25-16:50	Invited Talks 13:	
16:50-17:15	Invited Talks 14:	
17:15-17:40	Invited Talks 15:	
17:40-19:00	Dinner	

18 September 2026, Friday		
Parallel Session 1: Session 3: Seismic Interpretation/Mathematical geophysics interdisciplinary Session Chair:		
Time	Title	Presenter
08:30-08:50	Turning a Fault into Fortune: Unlocking a hidden Reservoir using Seismic Re-Processing	Abeer AlSaifi, SEG Middle East
08:50-09:10	Analysis of the Tectonic, Sedimentary, and Evolutionary Characteristics of the Philippine Sea Plate Based on Joint Gravity-Seismic Interpretation	Ke Qin, Qingdao Institute of Marine Geology
09:10-09:30	CIG-Bench: A Comprehensive Survey and Benchmark for AI-Driven Subsurface Imaging Understanding	Yimin Dou, University of Science and Technology of China
09:30-09:50	A Noise-Robust Fault-Recognition Network Trained via a Two-Stage Strategy	Meng Li, SINOPEC Petroleum Exploration and Production Research Institute
09:50-10:10	Coffee Break & Poster Session	
10:10-10:30	Deep learning high-precision geological anomaly identification method	Hao Song, BGP INC., China National Petroleum Corporation
10:30-10:50	Explicit Computation of Implicit Finite Difference schemes with Maximum resolution	Wenjuan Li, China Oilfield Services Limited (COSL)
10:50-11:10	A scan-based parallel pattern for seismic template matching algorithm on GPU platform	Pengcheng Chen, Southwest Petroleum University
11:10-11:30	An Innovative Mathematical Approach to Eliminate Near-Surface Effects and Extract Primary Reflection Wavelets	Youcef LADJADJ, Ferhat Abbas University
11:30-13:00	Lunch	

18 September 2026, Friday		
Parallel Session 2: Session 4: Data acquisition and processing/Mathematics of AI/Machine learning Session Chair:		
Time	Title	Presenter
08:30-08:50	Adaptive Self-Supervised Surface-Related Multiple Suppression	Huan Song, Research Center of Precision Geodesy, Innovation Academy for Precision Measurement Science and Technology, CAS
08:50-09:10	Intelligent Seismic Deblending via Image-trained Gaussian Denoiser	Yuhan Sui, Aramco Research Center – Beijing
09:10-09:30	Convolutional model-constrained deep learning for seismic resolution enhancement with limited labels	Haoran Zhang, China University of Petroleum-Beijing at Karamay
09:30-09:50	Multicomponent Seismic Data Reconstruction Based on a Quaternion Hybrid Network Constrained by Geometric Structure	Jianjun Gao, China University of Geosciences (Beijing)

09:50-10:10	Coffee Break & Poster Session	
10:10-10:30	DCTformer: Frequency-Time Domain Cyclic Learning for DAS VSP Coupling Noise Suppression	Qiankun Feng, Jilin University
10:30-10:50	Quantile Deep Learning Theory for Geophysical Probabilistic Inversion Methods	Hang Li, China University of Mining and Technology, Beijing
10:50-11:10	Full-waveform inversion and beyond: Customizable loss functions via a shared representation network for unified inversion and data processing	Xinru Mu, King Abdullah University of Science and Technology
11:10-11:30	Denoising AVO Gathers Using a Hybrid Loss U-Net Based on the Reflectivity Method	Shuhang Tang, Southwest Petroleum University
11:50-13:00	Lunch	

18 September 2026, Friday		
Parallel Session 3: Session 5: Modeling, Migration & Inversion/Seismology and AI Session Chair:		
Time	Title	Presenter
08:30-08:50	A Robust Mathematical Framework for Q Estimation from Prestack CMP Gathers	Yi He, Aramco Asia
08:50-09:10	A multi-task data-driven velocity model building method with auxiliary seismic images based on optimal transport conditional flow matching	Shuliang Wu, Tongji University
09:10-09:30	Multiscale FWI with Residual-Driven Frequency Updating and TV Regularization	Hao Ren, China Oilfield Services Limited (COSL)
09:30-09:50	Depth-progressive seismic velocity model building via generative diffusion models: From 2D to 3D	Shijun Cheng, King Abdullah University of Science and Technology
09:50-10:10	Coffee Break & Poster Session	
10:10-10:30	Physics-guided diffusion model for seismic impedance inversion with sparse well logs	Ning Wu, Jilin University
10:30-10:50	Porosity-constrained DeepKriging permeability modeling with residual-weight control	Haotong Liu, PetroChina Safety and Environmental Protection Technology Research Institute
10:50-11:10	Attenuation tomography with flow matching as a regularizer	Qi Hao, Jilin University
11:10-11:30	Machine learning-based earthquake catalog construction and 3D velocity structure imaging in western Sichuan region	Shijie Gao, AGRS
11:30-13:00	Lunch	

Student Oral Session 18 September 2026, Friday		
Parallel Session 1: Session 6: Foundation model, Machine learning, Data acquisition and processing Session Chair:		
Time	Title	Presenter
13:30-13:45	SeismicBench: Toward a Unified Open Benchmark Ecosystem for Seismic Data Processing	Qi Liu, Peking University
13:45-14:00	Blind-well constrained RF-Kriging sweet-spot prediction for tight gas reservoirs: A case study from a tight gas field in the Ordos Basin	Guowei Cao, Southwest Petroleum University
14:00-14:15	P- and S-Wave Attenuation Estimation from Conventional Logs via Deep Learning	Jikun Meng, Chengdu University of Technology
14:15-14:30	Physics-Constrained Gaussian Process Regression With Mag-Potential Kernel for Aeromagnetic Gradient Tensor Interpolation	Anran Huang, Jilin University
14:30-14:45	Continuous instantaneous phase-based high-precision instantaneous frequency inversion method and its application	Suhai Chen, Southwest Petroleum University
14:45-15:00	Effective Frequency Band Driven Limited-Sample Frequency-Domain Deep Learning High-Resolution Seismic Processing Method	Chenxi Liang, Southwest Petroleum University
15:00-15:20	Coffee Break & Poster Session	
15:20-15:35	Marchenko internal multiple prediction method for tracking high-impedance strata	Haoyang Ou, Southwest Petroleum University
15:35-15:50	Microseismic Event Identification Network Based on Multi-Domain Feature Fusion	Wenmin Sun, Northeast Petroleum University
15:50-16:05	Physics-Constrained Deep Q-Learning for 3-D Irregular Seismic Survey Design	Zhaoyang Xi, China University of Petroleum (Beijing)
16:05-16:20	ZS-P2P: Zero-Shot Self-Supervised Learning for Seismic Random and Erratic Noise Attenuation	Zengqiang Qiao, Ningxia University
16:20-16:35	Two-stage Multi-task U-Network VSP Wavefield Separation	Weixiong Cui, Southwest Petroleum University
16:35-16:50	Automatic traffic noise data selection based on statistical analysis for passive surface wave imaging	Luo Li, Southwest Petroleum University
16:50-17:05	Data-Driven Seismic Attenuation Compensation for Robust Inversion and Imaging	Haiyang Lu, Zhejiang University
17:05-17:30	Closing Ceremony & Awards	
17:30-19:00	Dinner	

Student Oral Session 18 September 2026, Friday		
Parallel Session 2: Session 7: Modeling, migration and inversion/Seismic Interpretation/Solid Earth and AI Session Chair:		
Time	Title	Presenter
13:30-13:45	Data-Driven Stratigraphic Correlation and Bayesian Geostatistics for Fluvial Reservoirs	Haifeng Zhang, Southwest Petroleum University
13:45-14:00	Full-Component Numerical Modeling of Seismoelectric Waves	Xinyuan Li, Jilin University
14:00-14:15	Flow-Matching Posterior Sampling for Joint Three-Parameter Seismic Inversion	Weitong Qin, Xi'an Jiaotong University
14:15-14:30	Understanding the Robustness of Reparameterized Full-Waveform Inversion Through Loss Landscape Perspective	Bingchuan Geng, Northeast Petroleum University
14:30-14:45	Deciphering Neural Reparameterized Full-Waveform Inversion with Neural Sensitivity Kernel and Wave Tangent Kernel Analysis	Ruihua Chen, Xi'an Jiaotong University
14:45-15:00	Multi-information Conditioned Diffusion Model for Seismic Velocity Model	Yaoyu Li, Harbin Institute of Technology
15:00-15:20	Coffee Break & Poster Session	
15:20-15:35	Prediction of In-situ Stress Under Multi-source Constraints	Anjie Jin, Southwest Petroleum University
15:35-15:50	Deep Learning-Based Identification of Fault Systems, Through-Going Patterns, and Fault-Controlled Gas Reservoir Prediction in Southern Sichuan Basin	Yinyu Wen, Southwest Petroleum University
15:50-16:05	Reservoir Prediction from Steerable Pyramid-Enhanced Seismic Data for Geological Feature Enhancement	Feilong Li, Southwest Petroleum University
16:05-16:20	Transfer Learning-Based Identification and Distribution of Deep Strike-Slip Faults in the Gaomo Area, Central Sichuan Basin	Bing He, Southwest Petroleum University
16:20-16:35	Multi-Scale Fracture Prediction in Deep Clastic Reservoirs Using Navigation Pyramid Technology: A Case Study from the Junggar Basin	Tao Li, Southwest Petroleum University
16:35-16:50	A Seismic Prediction Approach of Coalbed Internal Structure Based on Fisher Discriminant Model: A Case Study of Yulin Area, Ordos Basin	Yucong Huang, Southwest Petroleum University
16:50-17:05	Identification of Strike-Slip Faults Using Deep Transfer Learning in the Ultra-Deep Strongly Karstified Condition of the Halahatang area, Northern Tarim Basin	Yuyu He, Southwest Petroleum University
17:05-17:30	Closing Ceremony & Awards	
17:30-19:00	Dinner	

Student Oral Session 18 September 2026, Friday		
Parallel Session 3: Session 8: Seismic Interpretation/Seismology and AI/Solid Earth and AI/Mathematical geophysics interdisciplinary Session Chair:		
Time	Title	Presenter
13:30-13:45	Adaptive Fault Reconstruction via Structural Energy Evolution	Yiting Wu, Southwest Petroleum University
13:45-14:00	Acoustic impedance inversion based on a triple-encoder fusion neural networks	Xiao Chen, China University of Petroleum, Beijing
14:00-14:15	Automatic First-Motion Polarity Picking by Adaptive Sine Wave Template Matching	Huilian Ma, Chengdu University of Technology
14:15-14:30	Deep-Learning Seismic Characterization of Faults, Fault-Fracture Bodies, and Fracture Parameters in Tight Sandstone Gas Reservoirs: A Case Study of the Xu-2 Member, Western Sichuan Basin	Xing Zhang, Southwest Petroleum University
14:30-14:45	General Geometry-Informed Neural Operator for Magnetotelluric Forward Modeling and Bayesian Inversion	Heng Zhang, Zhejiang University
14:45-15:00	GeoSIM: A Physics-Rich Benchmark for Operator Learning and Geophysical Inversion	Hailong Liu, Tsinghua University
15:00-15:20	Coffee Break & Poster Session	
15:20-15:35	Learning Spectral Representations Facilitates Ground Roll Attenuation	Tianxiang Gao, Harbin Institute of Technology
15:35-15:50	An Enriched Galerkin Method for Wave Equations in Heterogeneous Media	Qi Zhang, Tongji University
15:50-16:05	Tensor-Based Modal Decomposition for Sparse Reconstruction of Dynamic Subsurface Fields	Denis Samatov, Tomsk Polytechnic University, Russia
16:05-16:20	Unsupervised Abnormal Amplitude Suppression Inspired by 5-D Interpolation	Yiming Su, Harbin Institute of Technology
16:20-16:35	A Unified Diffusion-Model Framework for Seismic Data Reconstruction via Range–Null Space Decomposition	Xinlei Wang, Xi'an Jiaotong University
16:35-16:50	Physics-Informed Hybrid Neural Operator for Multi-Source Frequency-Domain Seismic Wave Modeling	Daoguang Zhang, Harbin Institute of Technology
16:50-17:05	Discussion	
17:05-17:30	Closing Ceremony & Awards	
17:30-19:00	Dinner	

**2026 SEG 6th International Workshop on Mathematical Geophysics
Beijing · China**

Student Poster Session

17 September 2026, Thursday 15:40-16:00

Session1: Seismic Interpretation/Seismology and AI/Mathematical geophysics interdisciplinary

Session Chair:

Time	Screen No.	Paper ID	Title	Presenter
15:40-15:45	1#	P01	Tectonic Evolution and Seismic Characteristics of Multi-phase Fault Systems in Central Tarim Basin	Yaping Ren, China University of Geosciences (Wuhan)
15:45-15:50	1#	P02	Seismic amplitude curvature attribute extraction method based on 3D CNN	Fuzhou Wang, Xi'an Jiaotong University
15:50-15:55	1#	P03	Fine Identification Method for Fault-Controlled Carbonate Reservoirs Based on Deep Learning	Chenglong Li, China University of Geosciences, Wuhan
15:40-15:45	2#	P04	Confidence-Aware Seismic First-Break Picking Using a Dual-Decoder Multi-Channel Network	Jiajun Zhang, Chengdu University of Technology
15:45-15:50	2#	P05	Residual Diffusion Model for Distributed Acoustic Sensing Data Denoising	Dingrong Feng, Xi'an Jiaotong University
15:50-15:55	2#	P06	Anomalous-Amplitude Noise Suppression Based on Consistency Diffusion Models	Yudong Wang, Harbin Institute of Technology

Poster Session

18 September 2026, Friday 09:50-10:10

Session2: Data acquisition and processing/Modeling, migration and inversion

Session Chair:

Time	Screen No.	Paper ID	Title	Presenter
09:50-09:55	1#	P07	Source–receiver deghosting in the signed common-offset domain using local plane-wave decomposition	JiannanZhang, China Oilfield Services Limited (COSL)
09:55-10:00	1#	P08	Bayesian Robust Principal Component Analysis for Seismic Data Denoising	Yunze Li, Xi'an Technological University
10:00-10:05	1#	P09	Continuous Tensor Decomposition and Its Applications in Seismic Data Modeling	Yisi Luo, Xi'an Jiaotong University
09:50-09:55	2#	P10	Spatial Adaptive Total Variation Regularized Unsupervised Bayesian Deep Learning for Seismic Impedance Inversion	Xin Lan, Xi'an Technological University
09:55-10:00	2#	P11	Wave-Equation-Constrained Diffusion Framework for Seismic Velocity Inversion	Haoyu Fu, China University of Geosciences (Wuhan)

10:00-10:05	2#	P12	Mineral-Driven Rock Physics Modeling for Multi-Physics Property Generation in Synthetic Carbonate Reservoirs	Dongchao Su, China University of Geosciences (Wuhan)
Student Poster Session 18 September 2026, Friday 15:00-15:20				
Session3: Foundation model/Mathematics of AI/Machine learning Session Chair:				
Time	Screen No.	Paper ID	Title	Presenter
15:00-15:05	1#	P13	UniSFM: Unified Multitask Fine-Tuning for a Seismic Foundation Model	Junkai Liu, Zhengzhou University
15:05-15:10	1#	P14	Prior-Stabilized Residual Neural Operators for Robust Source-Variable Acoustic Inversion	Yushi Yang, Tongji University
15:00-15:05	2#	P15	Consistency of Variational Inference for Nonlinear Inverse Problems of Partial Differential Equations	Shaokang Zu, Xi'an Jiaotong University
15:05-15:10	2#	P16	SeisDDRL:An Interpretable Background Noise Suppresion Framework for Seismic Data	Liang Pang, Chengdu University of Technology