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|------------------|-----------------------------------------------------------------------|----------------|-------------------------|
| SEG<br>WORKSHOP  | SEG 6 <sup>th</sup> International Workshop on Mathematical Geophysics |                |                         |
|                  | SEG 第六届中国国际数学地球物理研讨会                                                  |                |                         |
|                  | Oct 30 – Nov 1, 2026                                                  | Beijing, China | 2026年10月30日-11月1日 中国·北京 |
| Official Program |                                                                       |                | 会议手册                    |



#### SEG 中国

北京市朝阳区建国路93号院万达广场5号楼2501室 100022

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## ATTENDING INSTRUCTION

### 参会须知

#### Registration

##### 注册参会

Only registrants who have successfully finished the registration process via below QR code are authorized to get access to the event venue with delegate badge and attend the workshop. Any questions, please email to china@seg.org.

参会代表需在报到当天或之前, 通过以下二维码完成注册报名, 现场领取会议材料, 凭参会代表证进入会场参会交流。

住宿及会议期间早餐代表自理, 午晚餐由会议统一安排。酒店房间紧张, 请务必提前预定。如需协助, 请联系会议邮箱: china@seg.org。



#### Onsite Registration

##### 现场注册/报到

- 30 October 2026, 09:00–18:00, Building No.1, Zhongguanyuan Global Village, Peking University
- 31 October 2026, 07:00–16:00, Building No.1, Zhongguanyuan Global Village, Peking University
- 10月30日, 周五, 09:00–18:00, 北京大学中关村1号楼B1层
- 10月31日, 周六, 07:00–16:00, 北京大学中关村1号楼B1层

#### Meeting Venue

##### 会议地点

**Building No.1, Zhongguanyuan Global Village, Peking University**

Add: No.126 Zhongguancun North Street, Haidian District, Beijing 100871, P.R.China

**北京大学中关村 1 号楼**

地址: 北京市海淀区中关村北大街 126 号, 邮编 100871

#### Onsite Tips

##### 注意事项

- The lunches and dinners are on the HEYUAN RESTAURANT (1st Floor, Building 5, Zhongguanyuan). Meal coupons will be required.
- All participants must wear badges to attend all the sessions.
- To respect the copyright of all the presentations, any forms of sound, camera or video recordings are not allowed.
- 会议期间的午晚餐地点: 中关村 5 号楼一层和园主题餐厅, 用餐时请出示本次会议餐券。
- 会议期间, 所有参会代表须佩戴胸卡入场。
- 为尊重报告的版权, 会议所有报告期间禁止任何形式的录音、摄像及录影。



IMPORTANT CONTACT INFORMATION

重要联络方式

Recommended Hotel

宿酒店推荐

- **ZHONGGUANYUAN HOTEL (meeting venue)**  
TEL: contact SEG China Office at china@seg.org for reservation
- **Beijing Wenting International Hotel**  
TEL: +86-(010)-62525566
- **UrCove by HYATT Beijing Zhongguancun Peking University**  
TEL: +86-(010)-62575989
- **Hanting Hotel (Beijing Zhongguancun Peking University Branch)**  
TEL: +86-(010)-62556688
- **中关村新园 (会议主场酒店)**  
电话: 联系 SEG 中国办公室 china@seg.org 申请预订
- **北京文津国际酒店**  
电话: +86-(010)-62525566
- **北京中关村北京大学逸扉酒店**  
电话: +86-(010)-62575989
- **汉庭酒店 (北京中关村北京大学店)**  
电话: +86-(010)-62556688

HSE Contact Numbers

HSE联络方式

- Emergency contact number: 110/119/120
- 紧急联系电话: 110/119/120

SEG Onsite Stafff

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BRIEF AGENDA

简明日程

| Date<br>日期                       | Time<br>时间                                                            | Session<br>单元                                  | Activity & Session<br>议程与活动                                                                                                              | Location<br>地点                                                          |
|----------------------------------|-----------------------------------------------------------------------|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| AM<br>31 October<br>10月31日<br>上午 | 08:30-12:00                                                           | Opening Ceremony<br>& Session I<br>开幕式<br>单元 I | Opening Ceremony /<br>Keynote Speaker Presentation<br>开幕式 / 大会报告                                                                         | Qunying Hall, B1F, Building 1,<br>Zhongguan Xinyuan<br>中关村新园1号楼 B1层 群英厅 |
| PM<br>31 October<br>10月31日<br>下午 | 14:00-17:25                                                           | Session II<br>单元 II                            | Seismic Interpretation/Mathemat-<br>ical geophysics interdisciplinary,<br>Modeling/Migration & Inversion<br>地震解释/数学地球物理交叉学科/<br>建模、偏移与反演 | Guangu Hall AD, 2F, Building 1<br>中关村新园1号楼 二层 观湖AD厅                     |
|                                  | 14:00-17:25                                                           | Session III<br>单元 III                          | Data Acquisition & Processing /<br>Mathematics of AI / Machine<br>Learning<br>数据采集与处理 / 人工智能数学基<br>础 / 机器学习                              | Guangu Hall BC, 2F, Building 1<br>中关村新园1号楼 二层 观湖BC厅                     |
|                                  | 14:00-17:25                                                           | Session IV<br>单元 IV                            | Modeling, Migration & Inversion<br>/ Seismology and AI<br>建模、偏移与反演 /<br>地震学与人工智能                                                         | Science Lecture Hall, 2F,<br>Building 1<br>中关村新园1号楼 二层 科学报告厅            |
| AM<br>1 November<br>11月1日<br>上午  | 08:15-12:10                                                           | Session V<br>单元 V                              | Machine Learning / Data<br>Acquisition & Processing<br>机器学习 / 数据采集与处理                                                                    | Guangu Hall AD, 2F, Building 1<br>中关村新园1号楼 二层 观湖AD厅                     |
|                                  | 08:30-12:10                                                           | Session VI<br>单元 VI                            | Modeling, Migration and<br>Inversion / Seismic Interpretation<br>建模、偏移与反演 / 地震解释                                                         | Guangu Hall BC, 2F, Building 1<br>中关村新园1号楼 二层 观湖BC厅                     |
|                                  | 08:30-12:10                                                           | Session VII<br>单元 VII                          | Seismic Interpretation /<br>Seismology, Solid Earth and AI /<br>Interdisciplinary<br>地震解释 / 地震学、深地科学与人<br>工智能 / 交叉学科                     | Jixian Hall, 7F, Building 1<br>中关村新园1号楼 七层 集贤厅                          |
|                                  | 31 Oct<br>15:30-15:50<br>/<br>17:05-17:25<br><br>1 Nov<br>10:00-10:20 | Poster Session<br>张贴报告单元                       | Student Poster Session<br>学生张贴报告专场                                                                                                       | 2F, Building 1, Zhongguan<br>Xinyuan<br>中关村新园1号楼 2层                     |

注：午餐 / 晚餐时间详见完整会议日程。会场地址：中关村新园1号楼（北京市海淀区）。

 **GENERAL CHAIRMAN**  
大会主席

Song Xi Chen

**Prof. Song Xi Chen**, Academician of the Chinese Academy of Sciences (CAS), is University Chair Professor and Founding Head of the Department of Statistics and Data Science at Tsinghua University. He received his Ph.D. in Statistics from the Australian National University in 1993. Prior to joining Tsinghua in 2024, he held chaired professorships at Peking University and a full professorship at Iowa State University. His research focuses on high-dimensional statistical inference, empirical likelihood, environmental modeling, machine learning, and stochastic processes.

Prof. Chen has published over 130 papers in leading statistical journals including *Annals of Statistics*, *JASA*, and *JRSSB*. He is a Fellow of IMS, ASA, and AAAS, and was elected Academician of the Chinese Academy of Sciences in 2021. He has served as President of the Society for Probability and Statistics of China and Vice President of the Statistical Association of China. He currently serves as Associate Editor for *JRSSB* and *Science China Mathematics*.

**陈松蹊院士**，清华大学统计与数据科学系讲席教授、系主任，清华大学学科交叉数据研究院院长。1993年获澳大利亚国立大学统计学博士学位，先后于北京师范大学、维多利亚惠灵顿大学深造。曾任北京大学讲席教授、统计科学中心创始主任，美国爱荷华州立大学统计学正教授。

陈教授的主要研究方向包括高维统计推断、经验似然理论、环境统计建模与评估、统计机器学习及随机过程推断。在高维协方差矩阵检验、超高维稀疏信号探测、空气质量评估及新冠疫情流行病统计建模等领域取得系列重要成果，在《统计年鉴》《美国统计学会杂志》《生物计量》等多个国际顶级期刊发表论文130余篇。美国数理统计学会、美国统计学会及美国科学促进会会士，2021年当选中国科学院院士。曾任中国概率统计学会理事长、中国统计学会副会长，现任《英国皇家统计学会B辑》及《中国科学：数学》副主编，并担任伯努利学会科学秘书、国际统计学会理事等学术职务。



Qiuming Cheng

**Prof. Qiuming Cheng**, Academician of the Chinese Academy of Sciences (CAS), and Foreign Member of the European Academy of Sciences, is a world-renowned expert in mathematical geosciences and mineral exploration. As the first non-Western President of the International Union of Geological Sciences (IUGS), he now leads the Deep-time Digital Earth (DDE) International Big Science Program. He founded the singularity theory for extreme geological events and the nonlinear quantitative mineral prediction system and is the double laureate of the IAMG Krige Medal and AAG Gold Medal. In 2026, his team developed a 91.1% accurate ML-based rutile genetic classification model published in *Precambrian Research*, providing new mineralogical evidence for supercontinent cycles and the early onset of Paleoproterozoic cold subduction. His self-developed GeoGPT intelligent mineral prediction platform has been widely applied in porphyry Cu-Au prospecting across more than 20 countries.

**成秋明院士**，国际知名数学地球科学与矿产勘查学家。现任深时数字地球（DDE）国际大科学计划总体专家组组长，是首位担任国际地质科学联合会（IUGS）主席的非欧美学者。长期从事定量地学研究，创立极端地质事件奇异性理论与非线性矿产定量预测体系，先后斩获国际数学地球科学协会最高奖克伦宾奖、国际应用地球化学家学会AAG金奖。2026年带领团队在机器学习赋能深时演化领域取得关键突破：在《Precambrian Research》发表金红石成因分类机器学习新模型，分类准确率达91.1%，为超大陆旋回与古元古代冷俯冲早期启动研究提供全新矿物学证据；牵头打造的GeoGPT智能矿产预测平台，已在全球斑岩铜金矿定量预测中实现规模化应用，相关成果支撑20余个国家的深地资源勘查实践。

**Suping Peng**

**Prof. Suping Peng**, Academician of the Chinese Academy of Engineering (CAE), is a leading expert in mine engineering geology and engineering geophysical exploration. He currently serves as Director of the Energy and Mining Engineering Division of the Chinese Academy of Engineering, Director of the State Key Laboratory of Coal Resources and Safe Mining, and President of the Public Safety Science and Technology Society. He established the world-leading high-resolution 3D seismic exploration system for coal mines, and independently developed core equipment including mine geological radars and multi-wave seismographs.

Academician Peng has won 1 National Technology Invention Award (Second Class), 3 National Science and Technology Progress Awards (Second Class), the Sun Yueqi Energy Grand Prize and the Guanghua Engineering Science and Technology Award. In 2026, his team made breakthroughs in multi-dimensional accurate early warning technology for lithium battery energy storage fires, which has been demonstrated in more than 30 large-scale new energy storage power stations nationwide. He also led the official release of the industry standard Technical Specification for Intelligent Fine Coal Exploration, providing core technical support for the safe and efficient exploitation of deep coal resources in China.

**彭苏萍**，中国工程院院士，矿山工程地质与工程物探专家，现任中国工程院能源与矿业工程学部主任、煤炭资源与安全开采国家重点实验室主任、公共安全科学技术学会理事长。长期从事矿井地质与工程物探教学科研工作，建立了国际领先的煤矿高分辨三维地震勘探技术体系，自主研制矿井地质雷达、多波地震仪等核心装备，先后获国家技术发明二等奖1项、国家科技进步二等奖3项，斩获孙越崎能源大奖、光华工程科技奖。2026年牵头主持的公共安全领域重大专项取得关键进展：带领团队突破锂电池储能火灾多维度精准预警核心技术，相关成果在国内30余个大型新能源储能电站完成示范应用；主导编制的《煤矿智能精细勘探技术规范》行业标准正式发布，为我国深部煤炭资源安全高效开采提供核心技术支撑。

**Jianwei Ma**

**Prof. Jianwei Ma**, Dean of the School of Mathematics and Associate Dean of the Institute of Artificial Intelligence at Harbin Institute of Technology, is a National Distinguished Young Scholar and leading expert of the National High-level Talents Program. His research spans applied mathematics and artificial intelligence, leading national key projects including the National Key R&D Program and Heilongjiang "Head Goose" Team Initiative. He has made landmark contributions to deep learning-based seismic inversion and CNN seismic denoising, with top-downloaded publications in Geophysics. His honors include the First Prize of Heilongjiang Natural Science Award and the Second Prize of China Geophysical Science and Technology Innovation. In 2026, he established a new energy-based theoretical framework for Transformer architectures and large model synthetic reasoning, providing core mathematical support to address the "engineering over theory" bottleneck in large model research. Prof. Ma conducts interdisciplinary research in exploration geophysics, applied mathematics, and AI, with over 4,700 Google Scholar citations.

**马坚伟教授**，哈尔滨工业大学数学学院院长、人工智能研究院副院长，国家杰出青年科学基金获得者，国家“万人计划”领军人才。长期深耕应用数学与人工智能交叉领域，主持国家重点研发计划专项、黑龙江省头雁团队项目等多项国家级重大课题，在深度学习地震反演技术、卷积神经网络地震信号去噪方向取得系列标志性成果，相关成果发表于《Geophysics》等国际顶刊，单篇论文下载量居领域首位，先后获中国地球物理科技创新二等奖、黑龙江省自然科学一等奖。2026年在大模型基础理论研究领域取得前沿突破：从能量解析视角揭示Transformer架构底层运行规律，系统提出大模型合成数据生成与推理机制的新理论框架，相关成果在人工智能数学基础前沿研讨会上发布，为破解大模型“重工程、轻理论”的行业瓶颈提供全新数学支撑。马教授长期从事勘探地球物理学、应用数学、人工智能的交叉学科研究，包括信号稀疏表达、深度学习、地震信号处理与反问题，发表论文在谷歌学术被引4700余次。

**Mauricio D. Sacchi**

**Prof. Mauricio D. Sacchi**, tenured Professor of Physics at the University of Alberta and Director of the Signal Analysis and Imaging Group (SAIG), is a world-leading authority in exploration geophysics and signal processing. He earned his BSc from Universidad Nacional de La Plata (1988) and PhD from the University of British Columbia (1996), served two terms as Department Chair, and was former Editor-in-Chief of Geophysics and Associate Editor of IEEE TGRS. His research focuses on high-dimensional seismic data reconstruction, sparse inversion and seismic imaging. He co-authored the classic monograph *Information-based Processing and Inversion with Applications* and is a recipient of top honors including the CSEG Medal, Vigil Kauffman Gold Medal and Killam Annual Professor. In 2025, his team published breakthroughs in high-dimensional irregular seismic data reconstruction and weak-supervision resolution enhancement in Geophysics, advancing the large-scale industrial deployment of multi-dimensional singular spectrum analysis in the oil and gas sector.

**Mauricio D. Sacchi**, 加拿大阿尔伯塔大学物理系终身教授，国际知名勘探地球物理与信号处理领域权威学者，现任阿尔伯塔大学SAIG信号分析与成像实验室主任。1988年于阿根廷国立拉普拉塔大学获地球物理学学士学位，1996年于不列颠哥伦比亚大学获地球物理博士学位，2010-2021年两度出任阿尔伯塔大学物理系主任，曾任国际顶级期刊《Geophysics》主编，现任IEEE Transactions on Geoscience and Remote Sensing副主编。长期深耕地震数据高维重建、稀疏信号反演、地震成像理论研究，与Tad Ulrych合著经典学术著作《Information-based Processing and Inversion with Applications》，先后斩获CSEG金质奖章、SEG中美洲荣誉讲席、Vigil Kauffman金奖、Killam年度教授等多项国际行业顶级荣誉。2025年带领团队在高维不规则地震数据重建、弱监督地震分辨率增强方向取得系列突破，相关成果连续发表于《Geophysics》等顶刊，推动多维奇异谱分析技术在油气工业界实现大规模工程化应用。

**TECHNICAL CO-CHAIRS****技术主席****Danping Cao**

**Danping Cao**, Professor at China University of Petroleum (East China), recipient of the National Natural Science Fund for Distinguished Young Scholars (China). He graduated with a bachelor degree in applied geophysics from the University of Petroleum in 2001. He has long been engaged in teaching and scientific research work for oil & gas reservoir geophysics, focusing on the combination and application of new technologies such as seismic inversion, artificial intelligence, digital rock physics, and distributed acoustic sensing. He is currently a registered geophysical engineer in China, serving as a council member of the Chinese Geophysical Society, deputy secretary-general of the Oil and Gas Geophysics Professional Committee, and a member of the Geophysical Exploration Technical Committee of the National Petroleum and Natural Gas Standardization Technical Committee. He has published more than 100 papers in the important geophysical journals. He has won one second prize for national scientific and technological progress and seven provincial and ministerial level teaching and research awards.

**曹丹平**，中国石油大学（华东）教授，国家杰出青年科学基金获得者。2001年毕业于石油大学并获得应用地球物理学学士学位。长期致力于油气储层地球物理领域的教学和科研工作，注重与地震反演、人工智能、数字岩石物理、分布式声学传感等新技术的结合和应用。现任中国注册地球物理工程师、中国地球物理学会理事、油气地球物理专业委员会副秘书长、全国石油天然气标准化技术委员会地球物理勘探技术委员会委员。在重要的地球物理期刊上发表了100多篇论文，获得国家科技进步二等奖1项、省部级教学科技奖励7项。



Yibo Wang

**Yibo Wang** is a professor at the Institute of Geology and Geophysics, Chinese Academy of Sciences. He is a recipient of the National Science Fund for Distinguished Young Scholars and serves as Chief Scientist of the National Key R&D Program. He has held research positions at the University of Utah, Saudi Aramco, BP America Inc., and Peking University. His current research focuses on geophysical imaging instrumentation and methods, as well as reservoir geomechanics. He currently serves as Associate Editor-in-Chief of the Chinese Journal of Geophysics, Associate Editor for Geophysics, Chair of the Chinese Geophysical Society's Committee of Young Geophysicists, and Chair of the China National Commission of the Young Earth Scientists Network (YES Network).

**王一博**，中国科学院地质与地球物理研究所二级研究员，博士生导师，所学术委员会委员，国家杰出青年基金获得者，国家重点研发计划变革性项目首席科学家。曾先后在美国犹他大学、沙特阿美石油公司、英国石油美国分公司、北京大学从事科研工作。目前主要研究方向为地球物理成像设备与方法、储层地质力学。现任地球物理学报副主编、Geophysics副主编、中国地球物理学会青年工作委员会主任、世界青年地球科学家联盟中国委员会主席。



Haijiang Zhang

**Haijiang Zhang**, Professor and Associate Director of the Institute of Geophysics at the University of Science and Technology of China, is a globally recognized authority in seismology and exploration geophysics, and a recipient of China's National High-level Talents Program. He earned his PhD from the University of Wisconsin-Madison and previously served as Research Scientist at MIT's Earth Resources Laboratory. A widely respected editorial board member for top journals including JGR: Solid Earth and GSA Bulletin, he is the sole developer of tomoDD, the world's most cited open-source double-difference seismic tomography code. His 2025 breakthrough in microseismic attenuation tomography for coalbed methane fracturing, published in Journal of Geophysics and Engineering, provides core technical support for the safe and efficient exploitation of deep unconventional hydrocarbon resources.

**张海江**，中国科学技术大学地球和空间科学学院教授，国家高层次人才计划入选者，国际知名地震学与勘探地球物理领域权威学者。2003年于美国威斯康星大学麦迪逊分校获地震学与地球物理学博士学位，曾任麻省理工学院地球资源实验室研究科学家，2010-2013年担任《美国地震学会会刊》副主编，现任《Journal of Geophysical Research-Solid Earth》《GSA-Bulletin》副主编。其研究长期聚焦油气与地热开发诱发的微震机理及高精度地震成像方法，是国际广泛应用的双差地震层析成像开源代码tomoDD的唯一开发者。2025年，其团队在煤层气压裂微地震衰减层析成像领域取得关键突破，成果发表于《Journal of Geophysics and Engineering》，为深部非常规油气资源的安全高效开发提供了核心技术支撑。

## KEYNOTE SPEAKER 2 | 特邀报告（二）

|                              |                                                                                |
|------------------------------|--------------------------------------------------------------------------------|
| <b>Haijiang Zhang</b><br>张海江 | University of Science and Technology of China<br>中国科学技术大学                      |
| <b>Title</b><br>报告题目         | <b>Joint geophysical inversion: methods and applications</b><br>联合地球物理反演：方法与应用 |
| <b>Time</b><br>报告时间          | 09:10-09:35 am, Sat/31 October 2026<br>2026年10月31日/周六，上午09:10-09:35            |



Zeyu Zhao

**Zeyu Zhao**, Researcher and PhD Supervisor at the School of Earth and Space Sciences, Peking University, is a recipient of the National Young Talents Program and an outstanding young scholar in international geophysics and marine geophysics. His research focuses on marine seismology, ocean mixing and turbulence parameterization, full-waveform inversion and uncertainty analysis. He has published multiple influential papers in top international journals such as *Geophysics* and *Geophysical Journal International*, with his work on gradient-based Markov chain Monte Carlo (MCMC) for full-waveform inversion and uncertainty analysis ranking among the most cited in the field. In 2026, as a key contributing author of the preprint *Unlocking A Global Ocean Mixing Dataset: toward Standardization of Seismic-derived Ocean Mixing Rates*, he proposed a novel standardized framework for estimating global ocean mixing rates from seismic data, opening a new pathway for quantifying global ocean turbulent mixing using marine seismic observations, which holds significant scientific value for understanding ocean energy transport and climate change.

**赵泽宇**，北京大学地球与空间科学学院研究员、博士生导师，国家级青年人才计划入选者，国际地球物理学与海洋地球物理领域优秀青年学者。长期从事海洋地震学、海洋混合与湍流参数化、全波形反演与不确定性分析研究，先后在《*Geophysics*》《*Geophysical Journal International*》等国际权威期刊发表多篇重要论文，其中关于梯度马尔可夫链蒙特卡洛（MCMC）全波形反演与不确定性分析的论文被引次数位居领域前列。2026年作为核心成员参与撰写的预印本论文《*Unlocking A Global Ocean Mixing Dataset: toward Standardization of Seismic-derived Ocean Mixing Rates*》提出了基于地震数据估算全球海洋混合速率的新标准化框架，为利用海洋地震数据量化全球海洋湍流混合开辟了新路径，对理解海洋能量传输与气候变化具有重要科学价值。



## TECHNICAL COMMITTEE

## 技术委员会

|                  |                                                                       |
|------------------|-----------------------------------------------------------------------|
| Shengchang Chen  | Zhejiang University                                                   |
| Wenchao Chen     | Xi' an Jiaotong University                                            |
| Xinbiao Duan     | Sinopec Petroleum Geophysical Technology Research Institute           |
| Lihua Fang       | China Earthquake Administration                                       |
| Jianhu Gao       | RIPED, Northwest Branch, PetroChina                                   |
| Jianhua Geng     | Tongji University                                                     |
| Guanghui Hu      | University of Macau                                                   |
| Guangmin Hu      | University of Electronic Science and Technology of China              |
| Xuri Huang       | Southwest Petroleum University                                        |
| Hui Ji           | National University of Singapore                                      |
| Fang Li          | CNOOC (China) Co., Ltd. Hainan Branch                                 |
| Lei Li           | BGP Inc., CNPC                                                        |
| Yue Li           | Jilin University                                                      |
| Weijian Mao      | Institute of Geodesy and Geophysics, CAS                              |
| Ping Tong        | Nanyang Technological University, Singapore                           |
| Xinming Wu       | University of Science and Technology of China                         |
| Yuan Yao         | The Hong Kong University of Science and Technology                    |
| Dinghui Yang     | Tsinghua University                                                   |
| Kun Yuan         | Peking University                                                     |
| Sanyi Yuan       | China University of Petroleum (Beijing)                               |
| Qingcai Zeng     | Research Institute of Petroleum Exploration & Development, PetroChina |
| Wei Zhang        | Southern University of Science and Technology                         |
| Gulan Zhang      | Southwest Petroleum University                                        |
| Tariq Alkhalifah | KAUST                                                                 |

(Above list is in alphabet order of last name.)

|                  |                      |
|------------------|----------------------|
| 陈生昌              | 浙江大学                 |
| 陈文超              | 西安交通大学               |
| 段心标              | 中国石化石油物探技术研究院        |
| 房立华              | 中国地震局                |
| 高建虎              | 中国石油勘探开发研究院西北分院      |
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| 胡光辉              | 澳门大学                 |
| 胡光岷              | 电子科技大学               |
| 黄旭日              | 西南石油大学               |
| 纪 辉              | 新加坡国立大学              |
| 李 芳              | 中海石油（中国）有限公司海南分公司    |
| 李 磊              | 中国石油集团东方地球物理勘探有限责任公司 |
| 李 月              | 吉林大学                 |
| 毛伟建              | 中国科学院测量与地球物理研究所      |
| 童 平              | 新加坡南洋理工大学            |
| 伍新明              | 中国科学技术大学             |
| 姚 远              | 香港科技大学               |
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| 袁 坤              | 北京大学                 |
| 袁三一              | 中国石油大学（北京）           |
| 曾庆才              | 中国石油勘探开发研究院          |
| 张 伟              | 南方科技大学               |
| 张固澜              | 西南石油大学               |
| Tariq Alkhalifah | KAUST                |

(以上为姓氏音序)



KEYNOTE SPEAKER  
大会报告

KEYNOTE SPEAKER 1 | 大会报告（一）



|                     |                                                                                                                     |
|---------------------|---------------------------------------------------------------------------------------------------------------------|
| Dinghui Yang<br>杨顶辉 | Tsinghua University<br>清华大学                                                                                         |
| Title<br>报告题目       | A Data-Model-Algorithm-Based Tri-Driven Oil/Gas Exploration and AI-Enabled Geodynamics<br>基于数据-模型-算法三驱动的油气勘探和智能化动力学 |
| Time<br>报告时间        | 08:45-09:10 am, Sat/31 October 2026<br>2026年10月31日/周六，上午08:45-09:10                                                 |

**Dinghui Yang** is a Professor of Mathematics at Tsinghua University, a recipient of China's National Science Fund for Distinguished Young Scholars, and a Fellow of the Chinese Society for Industrial and Applied Mathematics (CSIAM). His research spans computational geophysics, exploration geophysics, seismology, and numerical modeling of geodynamic processes. He has served as Executive Editor-in-Chief of the Chinese and English editions of Science China Earth Sciences since 2017 and previously served as Deputy Editor-in-Chief of Science Bulletin. Between 2008 and 2022, he served successively as Secretary-General and Vice President of CSIAM. He currently serves as Vice President of the Beijing Geophysical Society and Vice Chair of the Committee on Continental Dynamics. His honors include the First Prize in Natural Sciences from China's Ministry of Education, the Zhao Jiuzhang Award for Outstanding Young and Middle-Aged Scientists, and the Fu Chengyi Young Scientist Award. Working at the interface of mathematics and geophysics, he has published more than 200 SCI-indexed papers in leading journals, including Nature Communications, Earth and Planetary Science Letters, Geophysical Research Letters, Journal of Geophysical Research: Solid Earth, Science Bulletin, and Geophysics.

**杨顶辉**，清华大学教授，国家杰出青年基金获得者，中国工业与应用数学学会（CSIAM）会士。主要从事计算地球物理学、勘探地球物理学、地震学、地球动力学数值模拟等方面的研究。2017年至今任《中国科学：地球科学》和《Science China Earth Sciences》执行主编，曾任《Science Bulletin》副主编；2008—2022年先后任CSIAM秘书长、副理事长，现任北京地球物理学会副理事长、大陆动力学专业委员会副主任等。获教育部自然科学一等奖、赵九章优秀中青年科学奖、傅承义青年科技奖等。聚焦数学—地球物理学领域相关研究，在Nature Communications、EPSL、GRL、JGR-SE、Science Bulletin、Geophysics等国内外高水平学术刊物发表SCI论文200余篇。

KEYNOTE SPEAKER 3 | 大会报告（三）



|                  |                                                                                                                              |
|------------------|------------------------------------------------------------------------------------------------------------------------------|
| Xuan Feng<br>冯 晔 | Jilin University<br>吉林大学                                                                                                     |
| 报告题目             | Laboratory Characterization and Field Observation of Dynamic Nonlinear Elastic Properties of Rocks<br>岩石动态非线性弹性特征的实验室表征与野外观测 |
| Time<br>报告时间     | 09:35-10:00 am, Sat/31 October 2026<br>2026年10月31日/周六, 上午09:35-10:00                                                         |

**Feng Xuan** is Dean and Professor of the College of Geo-Exploration Science and Technology, Jilin University. He worked as a Postdoctoral Research Fellow and Research Assistant at Tohoku University, Japan, and a Visiting Scholar at MIT, USA. His research interests cover the theory and data analysis of exploration seismology and ground-penetrating radar. He has led multiple national research projects, including the National Science and Technology Major Project. He has published over 50 SCI papers as first or corresponding author in GRL, JGR: Solid Earth, IEEE TGRS, GJI and Geophysics, and serves as Associate Editor of Geophysics. He received the First Prize of Jilin Provincial Science and Technology Progress Award, the First Prize of Science and Technology Progress Award of Chinese Universities, and the SEG Outstanding Educator Award.

**冯晔**，吉林大学地球探测科学与技术学院院长、教授、博士生导师。曾任日本东北大学博士后、研究助手，美国麻省理工学院访问学者。主要研究方向为勘探地震学和探地雷达的理论与分析研究。主持国家科技重大专项项目、国家重点研发计划课题、国家自然科学基金面上项目等多项国家级项目。第一或通讯作者在GRL、JGR: Solid Earth、IEEE TGRS、GJI、Geophysics等领域内重要学术期刊发表50余篇SCI论文，担任《Geophysics》副主编。获吉林省科学技术进步奖一等奖、中国高校科技进步奖一等奖、SEG Outstanding Educator Award等奖项。

KEYNOTE SPEAKER 4 | 大会报告（四）



|                  |                                                                                                                        |
|------------------|------------------------------------------------------------------------------------------------------------------------|
| Ping Tong<br>童 平 | Nanyang Technological University (NTU)<br>新加坡南洋理工大学                                                                    |
| Title<br>报告题目    | From Adjoint-State Tomography to Integrated Geophysical Imaging: Advances and Applications<br>从伴随层析成像到综合地球物理成像：方法进展与应用 |
| Time<br>报告时间     | 10:00-10:25 am, Sat/31 October 2026<br>2026年10月31日/周六, 上午10:00-10:25                                                   |

**Ping Tong** is an Associate Professor in the School of Physical and Mathematical Sciences at Nanyang Technological University (NTU), Singapore, and a Principal Investigator at the Earth Observatory of Singapore. He also holds a courtesy appointment at the Asian School of the Environment at NTU. His research focuses on inverse problem theory, numerical modelling, and geophysical imaging, with applications spanning deep Earth structure and dynamics, energy and resource exploration, and geotechnical engineering. He has published over 90 scientific papers in international journals, including Nature Geoscience, Proceedings of the National Academy of Sciences (PNAS), Earth and Planetary Science Letters, Geophysical Research Letters, Journal of Geophysical Research: Solid Earth, and Inverse Problems. He currently leads several research projects on AI-native geophysical inversion, advanced seismic data analysis, and geothermal resource exploration and assessment.

**童平**现任新加坡南洋理工大学物理与数学科学学院副教授、新加坡地球观测所首席研究员，同时在新加坡南洋理工大学亚洲环境学院兼任客座教职。他的研究方向为反问题理论、数值模拟与地球物理成像，研究应用涵盖深部地球结构与动力学、能源与资源勘探以及岩土工程领域。他已在《自然·地球科学》《美国国家科学院院刊》（PNAS）、《地球与行星科学通讯》《地球物理研究快报》《地球物理研究杂志：固体地球》以及《反问题》等国际期刊发表90余篇学术论文。目前，他主持多项研究课题，主攻原生人工智能地球物理反演、先进地震数据分析以及地热资源勘探与评价。

KEYNOTE SPEAKER 5 | 大会报告（五）



|                    |                                                                                                                                                    |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| Yitian Xiao<br>肖倚天 | DDE International Research Center (Zhejiang)<br>DDE国际研究中心（浙江）                                                                                      |
| 报告题目               | From Foundation Models to Earth System Intelligence: GeoGPT, 021 and the Future of AI-Native Geoscience<br>从基础大模型到地球系统智能：GeoGPT、021 与原生人工智能地球科学的未来 |
| Time<br>报告时间       | 10:45-11:10 am, Sat/31 October 2026<br>2026年10月31日/周六，上午10:45-11:10                                                                                |

**Yitian Xiao** is Chief Scientist of the DDE International Research Center (Zhejiang) and a National Distinguished Expert. He is a geoscientist and AI expert. Previously, he served as Chief AI Scientist at Sinopec Exploration & Production Research Institute and Senior Geological Advisor at ExxonMobil. With over 30 years of experience in top energy companies in China and the US, and in universities and research institutions across China, the US, and the UK, he is a pioneer in advancing AI-enabled geoscience research. He held appointments as Adjunct Professor and Distinguished Visiting Scholar at multiple institutions including Rice University, Indiana University, Pennsylvania State University, the University of Bristol, China University of Petroleum (Beijing), Jilin University, and Lawrence Berkeley National Laboratory in the US. He also serves as an Editorial Board Member of Acta Geologica Sinica (English Edition). His research focuses on shale oil and gas geology and development, with profound expertise in oil and gas numerical simulation and data mining.

**肖倚天**，DDE国际研究中心（浙江）首席科学家，国家特聘专家，地球科学家与人工智能专家。曾任中国石化勘探开发研究院人工智能首席专家、埃克森美孚高级地质顾问，拥有三十余年在中美顶尖能源企业、中英美高校及科研机构的工作经历，是推动AI赋能地球科学研究的先行者。曾担任美国莱斯大学、印第安纳大学、宾夕法尼亚州立大学、英国布里斯托大学、中国石油大学（北京）、吉林大学及美国劳伦斯伯克利国家实验室等多家机构的客座教授、杰出访问学者等，并任《地质学报（英文版）》编委，长期从事页岩油气地质及开发研究，在油气数值模拟与数据挖掘领域造诣深厚。

KEYNOTE SPEAKER 6 | 大会报告（六）



|                |                                                                                                      |
|----------------|------------------------------------------------------------------------------------------------------|
| Kun Yuan<br>袁坤 | Peking University<br>北京大学                                                                            |
| Title<br>报告题目  | Accelerating LLM Pre-Training through Flat-Direction Dynamics Enhancement<br>一种基于平坦方向动力学增强的大模型预训练优化器 |
| Time<br>报告时间   | 11:10-11:35 am, Sat/31 October 2026<br>2026年10月31日/周六，上午11:10-11:35                                  |

**Kun Yuan** is a Professor (Principal Investigator) and doctoral supervisor at the Academy for Advanced Interdisciplinary Studies, Peking University, and a Peking University Boya Young Scholar. He received his Ph.D. from the University of California, Los Angeles (UCLA), USA, in 2019. From 2019 to 2022, he worked at the Alibaba DAMO Academy Seattle Research Center, USA. His long-term research focuses on the theory and algorithms of optimization, signal processing, and machine learning, and he has published nearly 100 papers in leading journals and top conferences. He received the Best Paper Award at the 2017 Annual Meeting of the International Consortium of Chinese Mathematicians, the 2018 IEEE Signal Processing Society Young Author Best Paper Award, the 2025 Mathematical Programming Distinguished Service Award, and the 2025 IEEE International Conference on Cloud Computing Technologies Distinguished Paper Award. His research results have been successfully applied in Alibaba's operations research solver, NVIDIA's official vision-intelligence software development library, and ByteDance's mathematical-reasoning large model. He leads several national research projects, including a project of the National Key R&D Program of China and a cultivation project of the Major Research Plan of the National Natural Science Foundation of China.

**袁坤**，北京大学前沿交叉学科研究院研究员、博士生导师，北京大学博雅青年学者。2019年于美国加州大学洛杉矶分校获博士学位。2019至2022年任职于阿里巴巴达摩院美国西雅图研究中心。长期从事最优化、信号处理与机器学习等领域的理论与算法研究，在权威期刊及顶级会议发表论文近百篇。曾获2017年世界华人数学家联盟年会最佳论文奖、2018年IEEE信号处理协会青年作者最佳论文奖、2025年Mathematical Programming杰出服务奖、2025年IEEE云计算技术会议杰出论文奖。研究成果已成功应用于阿里巴巴运筹优化求解器、英伟达视觉智能官方软件开发库、字节跳动数学推理大模型。主持国家重点研发计划课题、国家自然科学基金重大研究计划培育项目等多项国家级科研项目。

KEYNOTE SPEAKER 7 | 大会报告（七）



|                      |                                                                                                                                        |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Jingwei Liang<br>梁经纬 | Shanghai Jiao Tong University<br>上海交通大学                                                                                                |
| Title<br>报告题目        | Sparse Optimization: From Adaptive Dimension Reduction to AI-Assisted Discovery of Accelerated Algorithms<br>稀疏优化：从自适应降维到 AI 辅助的加速算法发现 |
| Time<br>报告时间         | 11:35 am-12:00 pm, Sat/31 October 2026<br>2026年10月31日/周六，上午11:35-12:00                                                                 |

**Jingwei Liang** is an Associate Professor at the Institute of Natural Sciences, Shanghai Jiao Tong University. He received his master's degree in mathematics from Shanghai Jiao Tong University in 2013 and his PhD in mathematics from the University of Caen Normandy, France, in 2016. From 2017 to 2020, he conducted postdoctoral research at the Department of Applied Mathematics and Theoretical Physics, University of Cambridge. At the end of 2020, he joined the School of Mathematical Sciences at Queen Mary University of London as a Lecturer in Data Science. He joined Shanghai Jiao Tong University in July 2021. His research interests include mathematical image processing, nonsmooth optimization, data science and AI4Math.

**梁经纬**，上海交通大学自然科学研究院副教授。2013年获上海交通大学数学硕士学位，2016年获法国卡昂大学数学博士学位。2017年至2020年，在英国剑桥大学应用数学与理论物理系从事博士后研究；2020年底加入伦敦玛丽女王大学数学科学学院，任数据科学讲师；2021年7月加入上海交通大学。主要研究方向包括数学图像处理、非光滑优化、数据科学和数学智能。

KEYNOTE SPEAKER 8 | 大会报告（八）



|                     |                                                                                                                                                  |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Yikang Zheng<br>郑忆康 | Institute of Geology and Geophysics, Chinese Academy of Sciences<br>中国科学院地质与地球物理研究所                                                              |
| Title<br>报告题目       | Deep Learning-Driven Ground-Penetrating Radar Wavefield Modeling, Imaging, and Inversion for Planetary Exploration<br>面向行星探测的深度学习驱动探地雷达波场模拟与成像反演 |
| Time<br>报告时间        | 14:00-14:25 pm, Sat/31 October 2026<br>2026年10月31日/周六，下午14:00-14:25                                                                              |

**Dr. Yikang Zheng** is a Professor at the Institute of Geology and Geophysics, Chinese Academy of Sciences (IGGCAS). He earned his B.Sc. from Peking University (2011) and Ph.D. from IGGCAS (2016), followed by postdoctoral research at the same institute. He was appointed Associate Professor in 2020 and Professor in 2024. He specializes in exploration geophysics, with research focusing on full-wavefield migration and inversion techniques, joint geophysical inversion methods, and time-lapse monitoring approaches. His academic contributions encompass more than 40 peer-reviewed publications and 10 authorized patents. His research has been supported by the National Natural Science Foundation of China's Young Scientists Fund (Category B). He also serves on the Executive Committee of the Young Earth Scientists Network in China.

**郑忆康博士**是中国科学院地质与地球物理研究所（IGGCAS）的教授。他于2011年获得北京大学学士学位，2016年获得中国科学院地质与地球物理研究所博士学位，随后在该所从事博士后研究。他于2020年被聘为副教授，2024年被聘为教授。

他专攻勘探地球物理学，研究重点包括全波场偏移与反演技术、地球物理联合反演方法以及时移监测方法。他的学术成果包括40余篇同行评审论文和10项授权专利。他的研究得到了国家自然科学基金青年科学基金项目（B类）的资助。他还担任世界青年地球科学家联盟中国委员会执行委员会委员。



## KEYNOTE SPEAKER 9 | 大会报告（九）



|                         |                                                                                                                                     |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| <b>Dawei Liu</b><br>刘达伟 | Xi'an Jiaotong University<br>西安交通大学                                                                                                 |
| <b>Title</b><br>报告题目    | <b>Local Broadband Observation-Guided Intelligent Seismic Resolution Enhancement for Target Horizons</b><br>局部宽频观测引导的地震目标层分辨率智能提升方法 |
| <b>Time</b><br>报告时间     | 14:00-14:25 pm, Sat/31 October 2026<br>2026年10月31日/周六，下午14:00-14:25                                                                 |

**Dawei Liu** is an Associate Professor at the School of Information and Communications Engineering, Xi'an Jiaotong University, China. He received his Ph.D. in Information and Communication Engineering from Xi'an Jiaotong University in 2022 and subsequently conducted postdoctoral research at Purdue University in the United States and the University of Alberta in Canada. His research focuses on the intersection of artificial intelligence and exploration geophysics, particularly seismic denoising, irregularly sampled data reconstruction, and target-oriented seismic resolution enhancement. He investigates the integration of classical signal processing, geophysical priors, and data-driven learning to address challenges in seismic data processing. His research interests include self-supervised and weakly supervised learning, implicit neural representations, and generative models, with an emphasis on developing physically interpretable and practically applicable methods for high-dimensional seismic data. Dr. Liu has published approximately 40 SCI-indexed journal papers. He serves as an Associate Editor of Geophysics and the Journal of Geophysical Prospecting, and is a member of the SEG Machine Learning Committee.

**刘达伟**，西安交通大学信息与通信工程学院副教授。2022年获西安交通大学信息与通信工程博士学位，先后在美国普渡大学和加拿大阿尔伯塔大学从事博士后研究。主要从事人工智能与勘探地球物理交叉研究，围绕地震资料去噪、非规则采样数据重建、地震目标层分辨率提升等关键问题，探索传统信号处理理论、地球物理先验与数据驱动方法的深度融合。研究方向涵盖自监督与弱监督学习、隐式神经表示及生成式模型，致力于发展兼具物理可解释性与实际应用能力的高维地震数据智能处理方法。目前已发表SCI收录论文约40篇，担任国际学术期刊Geophysics和Journal of Geophysical Prospecting副主编、SEG机器学习委员会成员。

## KEYNOTE SPEAKER 10 | 大会报告（十）



|                           |                                                                                                                  |
|---------------------------|------------------------------------------------------------------------------------------------------------------|
| <b>Hongzhu Cai</b><br>蔡红柱 | China University of Geosciences (Wuhan)<br>中国地质大学（武汉）                                                            |
| <b>Title</b><br>报告题目      | <b>Joint inversion and integrated geophysical imaging of the Asal Rift, Djibouti</b><br>吉布提 Asal 裂谷联合反演与综合地球物理成像 |
| <b>Time</b><br>报告时间       | 14:00-14:25 pm, Sat/31 October 2026<br>2026年10月31日/周六，下午14:00-14:25                                              |

**Hongzhu Cai** is a Professor and Doctoral Supervisor at China University of Geosciences (Wuhan), where he serves as Vice Dean of the School of Geophysics and Geomatics. He is a member of the Near Surface Geoscience Committee of the European Association of Geoscientists and Engineers (EAGE) and serves as its China Liaison. He is also an Associate Editor of IEEE Transactions on Geoscience and Remote Sensing (TGRS). He received his B.S. degree from Central South University in 2009 and his Ph.D. in Geophysics from the University of Utah, USA, in 2015. He previously held postdoctoral and assistant professor positions at the University of Utah and Aarhus University, Denmark. His research focuses on electromagnetic, gravity, and magnetic exploration, three-dimensional geophysical imaging, multiphysics joint inversion, and artificial intelligence for geophysical data processing and interpretation. He has served as Principal Investigator for several major research projects, including one Key Program project under the Joint Funds of the National Natural Science Foundation of China (NSFC), one project under the National Key Research and Development Program of China, two General Program projects funded by the NSFC, and several provincial- and ministerial-level key research projects. He is a recipient of the Fu Chengyi Young Scientist Award and, as a key contributor, received the First Prize of the Ministry of Education's Outstanding Scientific Research Achievement Award and the First Prize of the Jiangxi Provincial Science and Technology Progress Award.

**蔡红柱**，中国地质大学（武汉）教授、博士生导师，地球物理与空间信息学院副院长。兼任欧洲地质学家与工程师学会（EAGE）浅地表地球物理专委会委员暨中国区联络人、IEEE TGRS期刊副编辑。2009年获中南大学学士学位，2015年获美国犹他大学地球物理学博士学位，曾在犹他大学和丹麦奥胡斯大学从事博士后及助理教授工作。主要从事电磁与重磁探测、三维地球物理成像、多物理场联合反演及人工智能地球物理数据处理与解释等领域研究。近年来主持国家自然科学基金重点类项目（地质联合基金）1项、国家重点研发计划课题1项、国家自然科学基金面上项目2项及省部级重点研发项目等多项科研项目。获傅承义青年科技奖，并作为主要完成人获教育部科学研究优秀成果奖一等奖、江西省科学技术进步奖一等奖。

KEYNOTE SPEAKER 11 | 大会报告（十一）



|                |                                                                                                  |
|----------------|--------------------------------------------------------------------------------------------------|
| Jian Sun<br>孙剑 | Xi'an Jiaotong University<br>西安交通大学                                                              |
| Title<br>报告题目  | Generative Artificial Intelligence: Mathematical Foundations and Applications<br>生成式人工智能：数学基础与应用 |
| Time<br>报告时间   | 08:15-8:45 am, Sun/1 November 2026<br>2026年11月1日/周日，上午08:15-8:45                                 |

**Jian Sun** is a Professor at the School of Mathematics and Statistics, Xi'an Jiaotong University, and an editorial board member of IEEE TPAMI and IJCV. He previously held postdoctoral or visiting positions at Microsoft Research Asia, École Normale Supérieure de Paris, and Inria. His research focuses on mathematical foundations and algorithms for AI, particularly imaging inverse problems, medical image analysis, generative AI, and generalization. His work has appeared in IEEE TPAMI, Nature Communications, NSR, SIAM Journal on Imaging Sciences, NeurIPS, and CVPR. He has been awarded the National Distinguished Young Scholars Fund, the First Prize of the Shaanxi Provincial Natural Science Award (first contributor), and the Second Prize of the National Natural Science Award (second contributor). He has led a project supported by the National Key R&D Program of China.

**孙剑**，西安交通大学数学与统计学院教授，IEEE TPAMI和IJCV编委。曾在微软亚洲研究院、巴黎高等师范学院（École Normale Supérieure）及法国国家信息与自动化研究所（Inria）从事博士后或访问研究。研究方向为人工智能的数学基础与算法，尤其是成像反问题、医学图像分析、生成式人工智能与泛化理论。相关成果发表于IEEE TPAMI、Nature Communications、《国家科学评论》（NSR）、SIAM Journal on Imaging Sciences、NeurIPS和CVPR等。曾获国家杰出青年科学基金、陕西省自然科学奖一等奖（第一完成人）、国家自然科学基金二等奖（第二完成人），主持国家重点研发计划项目。



MEETING SCHEDULE  
会议日程

| 31 October 2026, Saturday                                                                                |                                                                                                                              |                                                                |
|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| Opening Ceremony (Venue: Qunying Hall, B1 Floor, Building 1, Zhongguan Xinyuan)<br>Moderator: Jianwei Ma |                                                                                                                              |                                                                |
| 08:30-08:35                                                                                              | Remarks by SEG Representative                                                                                                | Xuri Huang, SEG China, Southwest Petroleum University          |
| 08:35-08:40                                                                                              | Remarks by Industry Representative                                                                                           | Bangliu Zhao, CNPC Consulting Center                           |
| 08:40-08:45                                                                                              | Remarks by General Chair Representative                                                                                      | Jianwei Ma, Harbin Institute of Technology / Peking University |
| Session 1: Keynote Speakers Session<br>Session Chair: Jianwei Ma                                         |                                                                                                                              |                                                                |
| Time                                                                                                     | Title                                                                                                                        | Presenter                                                      |
| 08:45-09:10                                                                                              | Keynote Speaker 1: A Data-Model-Algorithm-Based Tri-Driven Oil/Gas Exploration and AI-Enabled Geodynamics                    | Dinghui Yang, Tsinghua University                              |
| 09:10-09:35                                                                                              | Keynote Speaker 2: Joint geophysical inversion: methods and applications                                                     | Haijiang Zhang, University of Science and Technology of China  |
| 09:35-10:00                                                                                              | Keynote Speaker 3: Laboratory Characterization and Field Observation of Dynamic Nonlinear Elastic Properties of Rocks        | Feng Xuan, Jilin University                                    |
| 10:00-10:25                                                                                              | Keynote Speaker 4: From Adjoint-State Tomography to Integrated Geophysical Imaging: Advances and Applications                | Ping Tong, Nanyang Technological University (NTU)              |
| 10:25-10:45                                                                                              | Group Photo & Coffee Break                                                                                                   |                                                                |
| 10:45-11:10                                                                                              | Keynote Speaker 5: From Foundation Models to Earth System Intelligence: GeoGPT, 021 and the Future of AI-Native Geoscience   | Yitian Xiao, DDE International Research Center (Zhejiang)      |
| 11:10-11:35                                                                                              | Keynote Speaker 6: Accelerating LLM Pre-Training through Flat-Direction Dynamics Enhancement                                 | Kun Yuan, Peking University                                    |
| 11:35-12:00                                                                                              | Keynote Speaker 7: Sparse Optimization: From Adaptive Dimension Reduction to AI-Assisted Discovery of Accelerated Algorithms | Jingwei Liang, Shanghai Jiao Tong University                   |
| 12:00-12:15                                                                                              | Award Acknowledgements                                                                                                       |                                                                |
| 12:20-13:00                                                                                              | Lunch                                                                                                                        |                                                                |

| 31 October 2026, Saturday                                                                                                                                                                                     |                                                                                                                                                   |                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Parallel Session 1 (Venue: Guangu Hall AD, 2F, Building 1, Zhongguan Xinyuan)<br>Session 2: Seismic Interpretation/Mathematical geophysics interdisciplinary、Modeling/Migration & Inversion<br>Session Chair: |                                                                                                                                                   |                                                                                           |
| Time                                                                                                                                                                                                          | Title                                                                                                                                             | Presenter                                                                                 |
| 14:00-14:25                                                                                                                                                                                                   | <b>Keynote Speaker 8</b> : Deep Learning–Driven Ground–Penetrating Radar Wavefield Modeling, Imaging, and Inversion for Planetary Exploration     | <b>Yikang Zheng</b> , <i>Geology and Geophysics, Chinese Academy of Sciences (IGGCAS)</i> |
| 14:25-14:45                                                                                                                                                                                                   | Turning a Fault into Fortune: Unlocking a hidden Reservoir using Seismic Re–Processing                                                            | <b>Abeer AlSaifi</b> , <i>Petroleum Development Oman (Online)</i>                         |
| 14:45-15:05                                                                                                                                                                                                   | Analysis of the Tectonic, Sedimentary, and Evolutionary Characteristics of the Philippine Sea Plate Based on Joint Gravity–Seismic Interpretation | <b>Ke Qin</b> , <i>Qingdao Institute of Marine Geology</i>                                |
| 15:05-15:25                                                                                                                                                                                                   | CIG–Bench: A Comprehensive Survey and Benchmark for AI–Driven Subsurface Imaging Understanding                                                    | <b>Yimin Dou</b> , <i>University of Science and Technology of China</i>                   |
| 15:25-15:45                                                                                                                                                                                                   | <b>Coffee Break &amp; Poster Presentation</b>                                                                                                     |                                                                                           |
| 15:45-16:05                                                                                                                                                                                                   | A Noise–Robust Fault–Recognition Network Trained via a Two–Stage Strategy                                                                         | <b>Meng Li</b> , <i>SINOPEC Petroleum Exploration and Production Research Institute</i>   |
| 16:05-16:25                                                                                                                                                                                                   | Explicit Computation of Implicit Finite Difference schemes with Maximum resolution                                                                | <b>Wenjuan Li</b> , <i>China Oilfield Services Limited (COSL)</i>                         |
| 16:25-16:45                                                                                                                                                                                                   | SiDLIF: A Scale–Invariant Deep Learning Framework for Surface–Wave Dispersion                                                                     | <b>Tianjian Cheng</b> , <i>Southwest Jiaotong University</i>                              |
| 16:45-17:05                                                                                                                                                                                                   | <b>Best Presentation Award for This Session</b>                                                                                                   |                                                                                           |
| 17:05-17:25                                                                                                                                                                                                   | <b>Poster Session</b>                                                                                                                             |                                                                                           |
| 17:30-19:00                                                                                                                                                                                                   | <b>Dinner</b>                                                                                                                                     |                                                                                           |

| 31 October 2026, Saturday                                                                                                                                                        |                                                                                                                              |                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Parallel Session 2 (Venue: Guangu Hall BC, 2F, Building 1, Zhongguan Xinyuan)<br>Session 3: Data acquisition and processing/Mathematics of AI/Machine learning<br>Session Chair: |                                                                                                                              |                                                                                                                                          |
| Time                                                                                                                                                                             | Title                                                                                                                        | Presenter                                                                                                                                |
| 14:00-14:25                                                                                                                                                                      | <b>Keynote Speaker 9</b> : Local Broadband Observation–Guided Intelligent Seismic Resolution Enhancement for Target Horizons | <b>Dawei Liu</b> , <i>Xi'an Jiaotong University</i>                                                                                      |
| 14:25-14:45                                                                                                                                                                      | Adaptive Self–Supervised Surface–Related Multiple Suppression                                                                | <b>Huan Song</b> , <i>Research Center of Precision Geodesy, Innovation Academy for Precision Measurement Science and Technology, CAS</i> |
| 14:45-15:05                                                                                                                                                                      | Intelligent Seismic Deblending via Image–trained Gaussian Denoiser                                                           | <b>Yuhan Sui</b> , <i>Aramco Research Center – Beijing</i>                                                                               |
| 15:05-15:25                                                                                                                                                                      | Denoising AVO Gathers Using a Hybrid Loss U–Net Based on the Reflectivity Method                                             | <b>Shuhang Tang</b> , <i>Southwest Petroleum University</i>                                                                              |
| 15:25-15:45                                                                                                                                                                      | <b>Coffee Break &amp; Poster Session</b>                                                                                     |                                                                                                                                          |
| 15:45-16:05                                                                                                                                                                      | Multicomponent Seismic Data Reconstruction Based on a Quaternion Hybrid Network Constrained by Geometric Structure           | <b>Jianjun Gao</b> , <i>China University of Geosciences (Beijing)</i>                                                                    |
| 16:05-16:25                                                                                                                                                                      | DCTformer: Frequency–Time Domain Cyclic Learning for DAS VSP Coupling Noise Suppression                                      | <b>Qiankun Feng</b> , <i>Jilin University</i>                                                                                            |
| 16:25-16:45                                                                                                                                                                      | Quantile Deep Learning Theory for Geophysical Probabilistic Inversion Methods                                                | <b>Jin Wen</b> , <i>Tsinghua University</i>                                                                                              |
| 16:45-17:05                                                                                                                                                                      | Convolutional model–constrained deep learning for seismic resolution enhancement with limited labels                         | <b>Haoran Zhang</b> , <i>China University of Petroleum–Beijing at Karamay</i>                                                            |
| 17:05-17:25                                                                                                                                                                      | <b>Best Presentation Award for This Session</b>                                                                              |                                                                                                                                          |
| 17:30-19:00                                                                                                                                                                      | <b>Dinner</b>                                                                                                                |                                                                                                                                          |

| 31 October 2026, Saturday                                                                                                                                             |                                                                                                                                            |                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| Parallel Session 3 (Venue: Science Lecture Hall, 2F, Building 1, Zhongguan Xinyuan)<br>Session 4: Modeling, Migration & Inversion/Seismology and AI<br>Session Chair: |                                                                                                                                            |                                                                                                  |
| Time                                                                                                                                                                  | Title                                                                                                                                      | Presenter                                                                                        |
| 14:00-14:25                                                                                                                                                           | <b>Keynote Speaker 10</b> : Joint inversion and integrated geophysical imaging of the Asal Rift, Djibouti                                  | <b>Hongzhu Cai</b> , <i>China University of Geosciences (Wuhan)</i>                              |
| 14:25-14:45                                                                                                                                                           | A Robust Mathematical Framework for Q Estimation from Prestack CMP Gathers                                                                 | <i>Yi He, Aramco Asia</i>                                                                        |
| 14:45-15:05                                                                                                                                                           | A multi-task data-driven velocity model building method with auxiliary seismic images based on optimal transport conditional flow matching | <i>Shuliang Wu, Tongji University</i>                                                            |
| 15:05-15:25                                                                                                                                                           | Multiscale FWI with Residual-Driven Frequency Updating and TV Regularization                                                               | <i>Hao Ren, China Oilfield Services Limited (COSL)</i>                                           |
| 15:25-15:45                                                                                                                                                           | <b>Coffee Break &amp; Poster Presentation</b>                                                                                              |                                                                                                  |
| 15:45-16:05                                                                                                                                                           | Physics-guided diffusion model for seismic impedance inversion with sparse well logs                                                       | <i>Ning Wu, Jilin University</i>                                                                 |
| 16:05-16:25                                                                                                                                                           | Porosity-constrained DeepKriging permeability modeling with residual-weight control                                                        | <i>Haotong Liu, PetroChina Safety and Environmental Protection Technology Research Institute</i> |
| 16:25-16:45                                                                                                                                                           | Attenuation tomography with flow matching as a regularizer                                                                                 | <i>Qi Hao, Jilin University</i>                                                                  |
| 16:45-17:05                                                                                                                                                           | Machine learning-based earthquake catalog construction and 3D velocity structure imaging in western Sichuan region                         | <i>Shijie Gao, AGRS</i>                                                                          |
| 17:05-17:25                                                                                                                                                           | <b>Best Presentation Award for This Session</b>                                                                                            |                                                                                                  |
| 17:30-19:00                                                                                                                                                           | <b>Dinner</b>                                                                                                                              |                                                                                                  |

| Student Oral Session<br>1 November 2026, Sunday                                                                                                                  |                                                                                                                                          |                                                             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| Parallel Session 1 (Venue: Guangu Hall AD, 2F, Building 1, Zhongguan Xinyuan)<br>Session 5: Machine learning / Data acquisition and processing<br>Session Chair: |                                                                                                                                          |                                                             |
| Time                                                                                                                                                             | Title                                                                                                                                    | Presenter                                                   |
| 08:15-08:45                                                                                                                                                      | <b>Keynote Speaker 11</b> : Generative Artificial Intelligence: Mathematical Foundations and Applications                                | <b>Jian Sun</b> , <i>Xi'an Jiaotong University</i>          |
| 08:45-09:00                                                                                                                                                      | Blind-well constrained RF-Kriging sweet-spot prediction for tight gas reservoirs: A case study from a tight gas field in the Ordos Basin | <i>Guowei Cao, Southwest Petroleum University</i>           |
| 09:00-09:15                                                                                                                                                      | P- and S-Wave Attenuation Estimation from Conventional Logs via Deep Learning                                                            | <i>Jikun Meng, Chengdu University of Technology</i>         |
| 09:15-09:30                                                                                                                                                      | Physics-Constrained Gaussian Process Regression With Mag-Potential Kernel for Aeromagnetic Gradient Tensor Interpolation                 | <i>Anran Huang, Jilin University</i>                        |
| 09:30-09:45                                                                                                                                                      | Continuous instantaneous phase-based high-precision instantaneous frequency inversion method and its application                         | <i>Suhai Chen, Southwest Petroleum University</i>           |
| 09:45-10:00                                                                                                                                                      | Effective Frequency Band Driven Limited-Sample Frequency-Domain Deep Learning High-Resolution Seismic Processing Method                  | <i>Chenxi Liang, Southwest Petroleum University</i>         |
| 10:00-10:20                                                                                                                                                      | <b>Coffee Break &amp; Poster Presentation</b>                                                                                            |                                                             |
| 10:20-10:35                                                                                                                                                      | Marchenko internal multiple prediction method for tracking high-impedance strata                                                         | <i>Haoyang Ou, Southwest Petroleum University</i>           |
| 10:35-10:50                                                                                                                                                      | Physics-Constrained Deep Q-Learning for 3-D Irregular Seismic Survey Design                                                              | <i>Zhaoyang Xi, China University of Petroleum (Beijing)</i> |
| 10:50-11:05                                                                                                                                                      | ZS-P2P: Zero-Shot Self-Supervised Learning for Seismic Random and Erratic Noise Attenuation                                              | <i>Zengqiang Qiao, Ningxia University</i>                   |
| 11:05-11:20                                                                                                                                                      | Two-stage Multi-task U-Netwrok VSP Wavefield Separation                                                                                  | <i>Weixiong Cui, Southwest Petroleum University</i>         |
| 11:20-11:35                                                                                                                                                      | Automatic traffic noise data selection based on statistical analysis for passive surface wave imaging                                    | <i>Luo Li, Southwest Petroleum University</i>               |
| 11:35-11:50                                                                                                                                                      | Data-Driven Seismic Attenuation Compensation for Robust Inversion and Imaging                                                            | <i>Haiyang Lu, Zhejiang University</i>                      |
| 11:50-12:10                                                                                                                                                      | <b>Closing Ceremony &amp; Awards</b>                                                                                                     |                                                             |
| 12:30-14:00                                                                                                                                                      | <b>Lunch</b>                                                                                                                             |                                                             |

| Student Oral Session<br>1 November 2026, Sunday                                                                                                                        |                                                                                                                                                      |                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| Parallel Session 2 (Venue: Guangu Hall BC, 2F, Building 1, Zhongguan Xinyuan)<br>Session 6: Modeling, migration and inversion/Seismic Interpretation<br>Session Chair: |                                                                                                                                                      |                                                |
| Time                                                                                                                                                                   | Title                                                                                                                                                | Presenter                                      |
| 08:30-08:45                                                                                                                                                            | Data-Driven Stratigraphic Correlation and Bayesian Geostatistics for Fluvial Reservoirs                                                              | Haifeng Zhang, Southwest Petroleum University  |
| 08:45-09:00                                                                                                                                                            | Full-Component Numerical Modeling of Seismoelectric Waves                                                                                            | Xinyuan Li, Jilin University                   |
| 09:00-09:15                                                                                                                                                            | Flow-Matching Posterior Sampling for Joint Three-Parameter Seismic Inversion                                                                         | Weitong Qin, Xi'an Jiaotong University         |
| 09:15-09:30                                                                                                                                                            | Understanding the Robustness of Reparameterized Full-Waveform Inversion Through Loss Landscape Perspective                                           | Bingchuan Geng, Northeast Petroleum University |
| 09:30-09:45                                                                                                                                                            | Deciphering Neural Reparameterized Full-Waveform Inversion with Neural Sensitivity Kernel and Wave Tangent Kernel Analysis                           | Ruihua Chen, Xi'an Jiaotong University         |
| 09:45-10:00                                                                                                                                                            | Multi-information Conditioned Diffusion Model for Seismic Velocity Model Building                                                                    | Yaoyu Li, Harbin Institute of Technology       |
| 10:00-10:20                                                                                                                                                            | Coffee Break & Poster Presentation                                                                                                                   |                                                |
| 10:20-10:35                                                                                                                                                            | Prediction of In-situ Stress Under Multi-source Constraints                                                                                          | Anjie Jin, Southwest Petroleum University      |
| 10:35-10:50                                                                                                                                                            | 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      |
| 10:50-11:05                                                                                                                                                            | Reservoir Prediction from Steerable Pyramid-Enhanced Seismic Data for Geological Feature Enhancement                                                 | Feilong Li, Southwest Petroleum University     |
| 11:05-11:20                                                                                                                                                            | Transfer Learning-Based Identification and Distribution of Deep Strike-Slip Faults in the Gaomo Area, Central Sichuan Basin                          | Bing He, Southwest Petroleum University        |
| 11:20-11:35                                                                                                                                                            | Multi-Scale Fracture Prediction in Deep Clastic Reservoirs Using Navigation Pyramid Technology: A Case Study from the Junggar Basin                  | Tao Li, Southwest Petroleum University         |
| 11:35-11:50                                                                                                                                                            | 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   |
| 11:50-12:10                                                                                                                                                            | Best Presentation Award for This Session                                                                                                             |                                                |
| 12:30-14:00                                                                                                                                                            | Lunch                                                                                                                                                |                                                |

| Student Oral Session<br>1 November 2026, Sunday                                                                                                                                                                  |                                                                                                                                                                                            |                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| Parallel Session 3 (Venue: Jixian Hall, 7F, Building 1, Zhongguan Xinyuan)<br>Session 7: Seismic Interpretation/Seismology and AI/Solid Earth and AI/Mathematical geophysics interdisciplinary<br>Session Chair: |                                                                                                                                                                                            |                                                   |
| Time                                                                                                                                                                                                             | Title                                                                                                                                                                                      | Presenter                                         |
| 08:30-08:45                                                                                                                                                                                                      | Adaptive Fault Reconstruction via Structural Energy Evolution                                                                                                                              | Yiting Wu, Southwest Petroleum University         |
| 08:45-09:00                                                                                                                                                                                                      | Acoustic impedance inversion based on a triple-encoder fusion neural networks                                                                                                              | Xiao Chen, China University of Petroleum, Beijing |
| 09:00-09:15                                                                                                                                                                                                      | Automatic First-Motion Polarity Picking by Adaptive Sine Wave Template Matching                                                                                                            | Huilian Ma, Chengdu University of Technology      |
| 09:15-09:30                                                                                                                                                                                                      | 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        |
| 09:30-09:45                                                                                                                                                                                                      | General Geometry-Informed Neural Operator for Magnetotelluric Forward Modeling and Bayesian Inversion                                                                                      | Heng Zhang, Zhejiang University                   |
| 09:45-10:00                                                                                                                                                                                                      | GeoSIM: A Physics-Rich Benchmark for Operator Learning and Geophysical Inversion                                                                                                           | Hailong Liu, Tsinghua University                  |
| 10:00-10:20                                                                                                                                                                                                      | Coffee Break & Poster Presentation                                                                                                                                                         |                                                   |
| 10:20-10:35                                                                                                                                                                                                      | 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           |
| 10:35-10:50                                                                                                                                                                                                      | Learning Spectral Representations Facilitates Ground Roll Attenuation                                                                                                                      | Tianxiang Gao, Harbin Institute of Technology     |
| 10:50-11:05                                                                                                                                                                                                      | An Enriched Galerkin Method for Wave Equations in Heterogeneous Media                                                                                                                      | Qi Zhang, Tongji University                       |
| 11:05-11:20                                                                                                                                                                                                      | Unsupervised Abnormal Amplitude Suppression Inspired by 5-D Interpolation                                                                                                                  | Yiming Su, Harbin Institute of Technology         |
| 11:20-11:35                                                                                                                                                                                                      | A Unified Diffusion-Model Framework for Seismic Data Reconstruction via Range-Null Space Decomposition                                                                                     | Xinlei Wang, Xi'an Jiaotong University            |
| 11:35-11:50                                                                                                                                                                                                      | Physics-Informed Hybrid Neural Operator for Multi-Source Frequency-Domain Seismic Wave Modeling                                                                                            | Daoguang Zhang, Harbin Institute of Technology    |
| 11:50-12:10                                                                                                                                                                                                      | Best Presentation Award for This Session                                                                                                                                                   |                                                   |
| 12:30-14:00                                                                                                                                                                                                      | Dinner                                                                                                                                                                                     |                                                   |

**Student Poster Session**  
**31 October 2026, Saturday 15:30-15:50**

Venue: 2F, Building 1, Zhongguan Xinyuan  
Session1: Seismic Interpretation/Seismology and AI/Mathematical geophysics interdisciplinary  
Session Chair:

| Time        | Screen No. | Paper ID | Title                                                                                              | Presenter                                            |
|-------------|------------|----------|----------------------------------------------------------------------------------------------------|------------------------------------------------------|
| 15:30-15:35 | 1#         | P01      | Tectonic Evolution and Seismic Characteristics of Multi-phase Fault Systems in Central Tarim Basin | Yaping Ren, China University of Geosciences (Wuhan)  |
| 15:35-15:40 | 1#         | P02      | Seismic amplitude curvature attribute extraction method based on 3D CNN                            | Fuzhou Wang, Xi'an Jiaotong University               |
| 15:40-15:45 | 1#         | P03      | Fine Identification Method for Fault-Controlled Carbonate Reservoirs Based on Deep Learning        | Chenglong Li, China University of Geosciences, Wuhan |
| 15:30-15:35 | 2#         | P04      | Confidence-Aware Seismic First-Break Picking Using a Dual-Decoder Multi-Channel Network            | Jiajun Zhang, Chengdu University of Technology       |
| 15:35-15:40 | 2#         | P05      | Residual Diffusion Model for Distributed Acoustic Sensing Data Denoising                           | Dingrong Feng, Xi'an Jiaotong University             |
| 15:40-15:45 | 2#         | P06      | Anomalous-Amplitude Noise Suppression Based on Consistency Diffusion Models                        | Yudong Wang, Harbin Institute of Technology          |

**Student Poster Session**  
**31 October 2026, Saturday 17:05-17:25**

Venue: 2F, Building 1, Zhongguan Xinyuan  
Session2: Modeling, migration and inversion / Mathematics of AI  
Session Chair:

|             |    |     |                                                                                                              |                                                      |
|-------------|----|-----|--------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| 17:05-17:10 | 1# | P07 | Wave-Equation-Constrained Diffusion Framework for Seismic Velocity Inversion                                 | Haoyu Fu, China University of Geosciences (Wuhan)    |
| 17:10-17:15 | 1# | P08 | Mineral-Driven Rock Physics Modeling for Multi-Physics Property Generation in Synthetic Carbonate Reservoirs | Dongchao Su, China University of Geosciences (Wuhan) |
| 17:05-17:10 | 2# | P09 | Consistency of Variational Inference for Nonlinear Inverse Problems of Partial Differential Equations        | Shaokang Zu, Xi'an Jiaotong University               |

**Student Poster Session**  
**1 November 2026, Sunday 10:00-10:20**

Venue: 2F, Building 1, Zhongguan Xinyuan  
Session3: Foundation model/Mathematics of AI/Machine learning/Seismic Interpretation  
Session Chair:

| Time        | Screen No. | Paper ID | Title                                                                                                                            | Presenter                                                          |
|-------------|------------|----------|----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| 10:00-10:05 | 1#         | P10      | UniSFM: Unified Multitask Fine-Tuning for a Seismic Foundation Model                                                             | Junkai Liu, Zhengzhou University                                   |
| 10:05-10:10 | 1#         | P11      | SeisDDRL: An Interpretable Background Noise Suppression Framework for Seismic Data                                               | Liang Pang, Chengdu University of Technology                       |
| 10:00-10:05 | 2#         | P12      | Gabor Time-Frequency Analysis with an Adaptive Multi-Window Dictionary and Cross-Scale Group Sparsity                            | Lehao Zhang, Chongqing Sanxia University of Science and Technology |
| 10:05-10:10 | 2#         | P13      | High-Resolution Time-Frequency Analysis of Seismic Signals by Integrating Dominant-Frequency Correction and Sparsity Constraints | Mengshi Tan, Chongqing Sanxia University of Science and Technology |



MEETING SCHEDULE  
会议日程

| 2026年10月31日，周六，上午                |                                                       |                     |
|----------------------------------|-------------------------------------------------------|---------------------|
| 大会开幕式（中关新园1号楼，B1层群英厅）<br>主持人：马坚伟 |                                                       |                     |
| 08:30-08:35                      | SEG代表致辞                                               | 黄旭日，SEG中国，西南石油大学    |
| 08:35-08:40                      | 行业代表致辞                                                | 赵邦六，中国石油天然气集团公司咨询中心 |
| 08:40-08:45                      | 大会主席代表致辞                                              | 马坚伟，哈尔滨工业大学，北京大学    |
| 单元一：大会报告<br>单元主席：马坚伟             |                                                       |                     |
| 时间                               | 题目                                                    | 报告人                 |
| 08:45-09:10                      | 大会报告1：基于数据-模型-算法三驱动的油<br>气勘探和智能化动力学                   | 杨顶辉，清华大学            |
| 09:10-09:35                      | 大会报告2：联合地球物理反演：方法与应用                                  | 张海江，中国科学技术大学        |
| 09:35-10:00                      | 大会报告3：岩石动态非线性弹性特征的实验<br>室表征与野外观测                      | 冯珏，吉林大学             |
| 10:00-10:25                      | 大会报告4：从伴随层析成像到综合地球物理<br>成像：方法进展与应用                    | 童平，新加坡南洋理工大学        |
| 10:25-10:45                      | 集体合照，茶歇                                               |                     |
| 10:45-11:10                      | 大会报告5：从基础大模型到地球系统智能：<br>GeoGPT、021 与原生人工智能地球科学的<br>未来 | 肖倚天，DDE 国际研究中心（浙江）  |
| 11:10-11:35                      | 大会报告6：一种基于平坦方向动力学增强的大模型预训练优化器                         | 袁坤，北京大学             |
| 11:35-12:00                      | 大会报告7：稀疏优化：从自适应降维到 AI<br>辅助的加速算法发现                    | 梁经纬，上海交通大学          |
| 12:00-12:15                      | 致谢颁奖                                                  |                     |
| 12:20-13:00                      | 午餐                                                    |                     |

| 2026年10月31日，周六，下午                                             |                                       |                                |
|---------------------------------------------------------------|---------------------------------------|--------------------------------|
| 分会场1：中关新园1号楼，二层观湖AD厅<br>单元二：地震解释/数学地球物理交叉学科/建模、偏移与反演<br>单元主席： |                                       |                                |
| 时间                                                            | 题目                                    | 报告人                            |
| 14:00-14:25                                                   | 大会报告8：面向行星探测的深度学习驱动探<br>地雷达波场模拟与成像反演  | 郑忆康，中科院地质与地球物理研究所              |
| 14:25-14:45                                                   | 依托地震资料再处理技术识别隐蔽油气藏，<br>实现断裂构造资源价值转化   | Abeer AlSaifi，阿曼石油开发公司<br>（线上） |
| 14:45-15:05                                                   | 基于重震联合解释的菲律宾海板块构造沉积<br>及演化过程特征分析      | 秦轲，青岛海洋地质研究所                   |
| 15:05-15:25                                                   | CIG-Bench：面向 AI 驱动地下成像理解的综<br>合性综述与基准 | 窦一民，中国科学技术大学                   |
| 15:25-15:45                                                   | 茶歇 & 张贴报告                             |                                |
| 15:45-16:05                                                   | 一种基于两步法训练的抗噪通用断层识别网络                  | 李蒙，中国石油化工股份有限公司石油<br>勘探开发研究院   |
| 16:05-16:25                                                   | 面向极限分辨率的隐式有限差分格式显式数值<br>计算方法          | 李文娟，中海油田服务股份有限公司物<br>探研究院      |
| 16:25-16:45                                                   | SiDLIF：一种用于面波频散的尺度不变深度学<br>习框架        | 程天健，西南交通大学                     |
| 16:45-17:05                                                   | 本单元优秀报告颁奖                             |                                |
| 17:05-17:25                                                   | 张贴报告                                  |                                |
| 17:30-19:00                                                   | 晚餐                                    |                                |

| 2026年10月31日，周六，下午                                          |                                       |                        |
|------------------------------------------------------------|---------------------------------------|------------------------|
| 分会堂2：中关新园1号楼，二层观湖BC厅<br>单元三：数据采集与处理/人工智能数学基础/机器学习<br>单元主席： |                                       |                        |
| 时间                                                         | 题目                                    | 报告人                    |
| 14:00-14:25                                                | <b>大会报告9</b> ：局部宽频观测引导的地震目标层分辨率智能提升方法 | <b>刘达伟</b> ，西安交通大学     |
| 14:25-14:45                                                | 自监督地震自由表面多次波压制方法                      | 宋欢，中国科学院精密测量科学与技术创新研究院 |
| 14:45-15:05                                                | 基于图像训练高斯去噪器的智能去混叠方法                   | 隋宇涵，沙特阿美北京研发中心         |
| 15:05-15:25                                                | 基于反射率法与混合损失U-Net的AVO道集去噪方法            | 唐书航，西南石油大学             |
| 15:25-15:45                                                | <b>茶歇 &amp; 张贴报告</b>                  |                        |
| 15:45-16:05                                                | 基于几何机构约束的四元数混合网络的多分量地震数据重建研究          | 高建军，中国地质大学（北京）         |
| 16:05-16:25                                                | 基于频率-时间域循环学习的DAS VSP耦合噪声压制方法          | 冯黔堃，吉林大学               |
| 16:25-16:45                                                | 面向地球物理概率化反演方法的分位数深度学习理论               | 温璿，清华大学                |
| 16:45-17:05                                                | 有限标签下褶积模型约束的深度学习提高地震资料分辨率方法           | 张浩然，中国石油大学（北京）克拉玛依校区   |
| 17:05-17:25                                                | <b>本单元优秀报告颁奖</b>                      |                        |
| 17:30-19:00                                                | <b>晚餐</b>                             |                        |

| 2026年10月31日，周六，下午                                      |                                         |                        |
|--------------------------------------------------------|-----------------------------------------|------------------------|
| 分会堂3：中关新园1号楼，二层科学报告厅<br>单元四：建模、偏移与反演/地震学与人工智能<br>单元主席： |                                         |                        |
| 时间                                                     | 题目                                      | 报告人                    |
| 14:00-14:25                                            | <b>大会报告10</b> ：吉布提 Asal 裂谷联合反演与综合地球物理成像 | <b>蔡红柱</b> ，中国地质大学（武汉） |
| 14:25-14:45                                            | 一种从叠前 CMP 道集估计 Q 值的稳健数学框架               | 贺毅，阿美亚洲                |
| 14:45-15:05                                            | 基于最优传输条件流匹配的多任务数据驱动地震成像辅助速度建模方法         | 吴树梁，同济大学               |
| 15:05-15:25                                            | 基于残差驱动频率更新和全变分正则化的多尺度全波形反演              | 任浩，中海油田服务股份有限公司        |
| 15:25-15:45                                            | <b>茶歇 &amp; 张贴报告</b>                    |                        |
| 15:45-16:05                                            | 稀疏测井条件下地震波阻抗反演的物理引导扩散模型                 | 吴宁，吉林大学                |
| 16:05-16:25                                            | 具有孔隙度约束的深度克里金渗透率建模与残差权重控制               | 刘浩童，中石油安全环保研究院         |
| 16:25-16:45                                            | 以流匹配作为正则化的衰减层析成像                        | 郝奇，吉林大学                |
| 16:45-17:05                                            | 川西地区基于机器学习的地震目录构建与三维速度结构成像研究            | 高世杰，中国自然资源航空物探遥感中心     |
| 17:05-17:25                                            | <b>本单元优秀报告颁奖</b>                        |                        |
| 17:30-19:00                                            | <b>晚餐</b>                               |                        |

| 学生报告专场（口头）<br>2026年11月1日，周日，上午                       |                                          |                |
|------------------------------------------------------|------------------------------------------|----------------|
| 分会场1： 中关新园1号楼， 二层观湖AD厅<br>单元五： 机器学习/数据采集与处理<br>单元主席： |                                          |                |
| 时间                                                   | 题目                                       | 报告人            |
| 08:15-08:45                                          | <b>大会报告11</b> ：生成式人工智能：数学基础与应用           | 孙剑，西安交通大学      |
| 08:45-09:00                                          | 盲井约束 RF-Kriging 致密气藏甜点区预测：以鄂尔多斯盆地某致密气田为例 | 曹国威，西南石油大学     |
| 09:00-09:15                                          | 基于深度学习和常规测井曲线的地层纵横波衰减计算方法                | 孟继昆，成都理工大学     |
| 09:15-09:30                                          | 基于势场核的物理约束高斯过程回归的航空磁梯度张量插值方法             | 黄安冉，吉林大学       |
| 09:30-09:45                                          | 基于连续瞬时相位的高精度瞬时频率反演方法及其应用                 | 陈溯海，西南石油大学     |
| 09:45-10:00                                          | 有效频带驱动的有限样本频域深度学习地震数据高分辨率处理方法            | 梁晨曦，西南石油大学     |
| 10:00-10:20                                          | 茶歇 & 张贴报告                                |                |
| 10:20-10:35                                          | 追踪强波阻抗地层的理论层间多次波预测方法                     | 欧浩洋，西南石油大学     |
| 10:35-10:50                                          | 基于物理约束深度学习的三维地震非规则观测系统设计方案               | 席兆阳，中国石油大学（北京） |
| 10:50-11:05                                          | 基于零样本自监督学习的地震数据随机和不规则噪声衰减方法              | 乔增强，宁夏大学       |
| 11:05-11:20                                          | 两阶段多任务网络波场分离                             | 崔伟雄，西南石油大学     |
| 11:20-11:35                                          | 基于统计分析的交通噪声数据自动筛选被动源面波成像                 | 李梦，西南石油大学      |
| 11:35-11:50                                          | 面向稳健反演与成像的数据驱动地震衰减补偿                     | 鲁海洋，浙江大学       |
| 11:50-12:10                                          | 本单元优秀报告颁奖                                |                |
| 12:30-14:00                                          | 午餐                                       |                |

| 学生报告专场（口头）<br>2026年11月1日，周日，上午                        |                                   |             |
|-------------------------------------------------------|-----------------------------------|-------------|
| 分会场2： 中关新园1号楼， 二层观湖BC厅<br>单元六： 建模、偏移与反演/地震解释<br>单元主席： |                                   |             |
| 时间                                                    | 题目                                | 报告人         |
| 08:30-08:45                                           | 河流相储层数据驱动的地层对比与贝叶斯地质统计学           | 张海峰，西南石油大学  |
| 08:45-09:00                                           | 震电波场的全分量数值建模                      | 李心源，吉林大学    |
| 09:00-09:15                                           | 基于流匹配后验采样的三参数联合地震反演               | 覃伟桐，西安交通大学  |
| 09:15-09:30                                           | 从损失景观角度理解重参数化全波形反演的鲁棒性            | 耿冰川，东北石油大学  |
| 09:30-09:45                                           | 深度神经网络模型重参数化全波形反演的神经敏感核与波形正切核理论分析 | 陈瑞华，西安交通大学  |
| 09:45-10:00                                           | 基于多模态条件扩散模型的地震速度建模                | 李曜宇，哈尔滨工业大学 |
| 10:00-10:20                                           | 茶歇 & 张贴报告                         |             |
| 10:20-10:35                                           | 基于多源约束的地应力预测                      | 金安杰，西南石油大学  |
| 10:35-10:50                                           | 四川盆地南部基于深度学习的断层系统识别、贯通模式和断层控制气藏预测 | 温银宇，西南石油大学  |
| 10:50-11:05                                           | 中亚气田中下侏罗统储层预测技术                   | 李飞龙，西南石油大学  |
| 11:05-11:20                                           | 川中高磨地区基于迁移学习的深层走滑断裂识别与分布规律研究      | 何冰，西南石油大学   |
| 11:20-11:35                                           | 基于导航金字塔技术的深部碎屑岩储层多尺度裂缝预测：以准噶尔盆地为例 | 李涛，西南石油大学   |
| 11:35-11:50                                           | 基于判别模型的煤体结构地震预测技术以鄂尔多斯盆地榆林区块为例    | 黄玉聪，西南石油大学  |
| 11:50-12:10                                           | 本单元优秀报告颁奖                         |             |
| 12:30-14:00                                           | 午餐                                |             |

| 学生报告专场（口头）<br>2026年11月1日，周日，上午                                |                                        |               |
|---------------------------------------------------------------|----------------------------------------|---------------|
| 分会场3：  中关村新园1号楼，七层集贤厅<br>单元七：地震解释/地震学、深地科学与人工智能/交叉学科<br>单元主席： |                                        |               |
| 时间                                                            | 题目                                     | 报告人           |
| 08:30-08:45                                                   | 基于结构能量演化的自适应断层重构方法                     | 吴艺婷，西南石油大学    |
| 08:45-09:00                                                   | 基于三编码器融合神经网络的声阻抗反演                     | 陈晓，中国石油大学（北京） |
| 09:00-09:15                                                   | 基于自适应正弦波模板匹配的初动极性自动提取                  | 马慧莲，成都理工大学    |
| 09:15-09:30                                                   | 基于深度学习的致密砂岩气藏断层、断缝体与裂缝参数地震表征以川西坳陷须二段为例 | 张兴，西南石油大学     |
| 09:30-09:45                                                   | 面向大地电磁正演模拟与贝叶斯反演的通用几何信息神经算子            | 张恒，浙江大学       |
| 09:45-10:00                                                   | 用于算子学习与地球动力学反演的高保真模拟基准                 | 刘海龙，清华大学      |
| 10:00-10:20                                                   | 茶歇 & 张贴报告                              |               |
| 10:20-10:35                                                   | 塔里木盆地北部哈拉哈塘地区超深层强烈岩溶条件下基于深度迁移学习的走滑断层识别 | 贺雨雨，西南石油大学    |
| 10:35-10:50                                                   | 学习频谱表征促进面波压制                           | 高天翔，哈尔滨工业大学   |
| 10:50-11:05                                                   | 非均质介质中波动方程的富集Galerkin方法                | 张琪，同济大学       |
| 11:05-11:20                                                   | 基于五维插值启发的无监督异常振幅压制                     | 苏一鸣，哈尔滨工业大学   |
| 11:20-11:35                                                   | 基于扩散模型的地震数据重建——值域-零空间统一框架              | 王欣蕾，西安交通大学    |
| 11:35-11:50                                                   | 基于物理信息混合神经算子的多震源频域波场正演                 | 张道广，哈尔滨工业大学   |
| 11:50-12:10                                                   | 本单元优秀报告颁奖                              |               |
| 12:30-14:00                                                   | 午餐                                     |               |

| 学生报告专场（张贴）<br>2026年10月31日，周六，下午 15:30-15:50<br>地点：  中关村新园1号楼，2层 |      |      |                                |                |
|-----------------------------------------------------------------|------|------|--------------------------------|----------------|
| 单元1：地震解释/地震学与人工智能/数学地球物理交叉学科<br>单元主席：                           |      |      |                                |                |
| 时间                                                              | 屏幕序号 | 论文编号 | 题目                             | 报告人            |
| 15:30-15:35                                                     | 1#   | P01  | 塔里木盆地中部多期断裂系统的构造演化与地震特征        | 任亚平，中国地质大学（武汉） |
| 15:35-15:40                                                     | 1#   | P02  | 基于三维卷积神经网络的地震振幅曲率属性提取方法        | 王福洲，西安交通大学     |
| 15:40-15:45                                                     | 1#   | P03  | 基于深度学习的碳酸盐岩断控储层精细识别方法          | 李成龙，中国地质大学（武汉） |
| 15:30-15:35                                                     | 2#   | P04  | 基于双解码多通道网络的置信度感知地震初至拾取         | 张嘉俊，成都理工大学     |
| 15:35-15:40                                                     | 2#   | P05  | 用于DAS数据去噪的残差扩散模型               | 冯鼎容，西安交通大学     |
| 15:40-15:45                                                     | 2#   | P06  | 基于一致性扩散模型的异常振幅噪声压制             | 王宇栋，哈尔滨工业大学    |
| 学生报告专场（张贴）<br>2026年10月31日，周六，下午 17:05-17:25<br>地点：  中关村新园1号楼，2层 |      |      |                                |                |
| 单元主题2：建模、偏移与反演 / 人工智能数学基础<br>单元主席：                              |      |      |                                |                |
| 17:05-17:10                                                     | 1#   | P07  | 基于波动方程约束的扩散模型速度反演框架            | 傅皓玉，中国地质大学（武汉） |
| 17:10-17:15                                                     | 1#   | P08  | 基于矿物驱动岩石物理建模的合成碳酸盐岩储层多物理属性生成方法 | 苏董超，中国地质大学（武汉） |
| 17:05-17:10                                                     | 2#   | P09  | 偏微分方程非线性反问题变分推断方法的相合性理论        | 祖劭康，西安交通大学     |

| 学生报告专场（张贴）<br>2026年11月1日，周日，上午 10:00-10:20<br>地点：中关新园1号楼，2层 |          |          |                                   |              |
|-------------------------------------------------------------|----------|----------|-----------------------------------|--------------|
| 单元主题3：基础模型 / 机器学习 / 地震解释<br>单元主席：                           |          |          |                                   |              |
| 时间                                                          | 屏幕<br>序号 | 论文<br>编号 | 题目                                | 报告人          |
| 10:00-10:05                                                 | 1#       | P10      | UniSFM：面向地震基础模型的统一多任务<br>微调       | 刘俊凯，郑州大学     |
| 10:05-10:10                                                 | 1#       | P11      | SeisDDRL:一种可解释性的地震背景噪声<br>压制框架    | 庞亮，成都理工大学    |
| 10:00-10:05                                                 | 2#       | P12      | 自适应多窗宽字典与跨尺度组稀疏约束的<br>Gabor时频分析方法 | 张乐浩，重庆三峡科技大学 |
| 10:05-10:10                                                 | 2#       | P13      | 主频校正与稀疏约束融合的地震信号高分<br>辨率时频分析方法研究  | 谭梦诗，重庆三峡科技大学 |

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