

# **THE THIRTEENTH CHINA INTERNATIONAL GEO-ELECTROMAGNETIC WORKSHOP**

**Organizer:** Chinese Geophysical Society Geo-electromagnetic Professional Committee

**Co-organizer:** China University of Geosciences, Wuhan

National Natural Science Foundation of China Division III of Earth Sciences

Hubei Subsurface Multi-Scale Imaging Key Laboratory

Yangtze University

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Thursday, 09 November, 2017	
09:00-17:30	Registration & Poster Installation
18:00-20:00	Ice Breaker

Friday, 10 November, 2017		
08:30-09:10	Opening Remarks	
09:10-09:30	Group Photography	
09:30-09:55	Keynote	<b>Wide field electromagnetic methods: leapfrog of EM method from extensive to fine exploration</b> <i>Jishan He</i>
09:55-10:20	Keynote	<b>Multi-stage evolution of the Ordos lithosphere from stochastic inversion, geoid, surface heat flow, Rayleigh wave dispersion data and magnetotelluric data</b> <i>Alan Jones</i>
10:20-10:45	Keynote	<b>Preliminary study on the electromagnetic anomaly related some earthquakes using CSELF electromagnetic observatory network</b> <i>Guoze Zhao, Bing Han, Lifeng Wang, Ji Tang, Xiaobin Chen, Yan Zhan, Qibin Xiao, Zeyi Dong, Feng Jiang, Yan Deng</i>
10:45-11:00	S01-01	<b>Dehydration of antigorite using a double distributed activation energy model</b> <i>Tao Liu, DuoJun Wang, Kewei Shen, Chuanjiang Liu</i>
11:00-11:15	S12-02 Y	<b>Interpretation of Chang'e-3 lunar penetrating radar data using reverse time migration</b> <i>Bowen Ma, Weiqiang Zhu, Qinghua Huang</i>
11:15-11:30	S12-03	<b>Deep 3D resistivity and induced polarisation investigations using multi-azimuthal current injections and a distributed receiving system</b> <i>Jean Bernard</i>
11:30-12:00	Poster Introduction: Session 1, 2, 9, 12	
12:00-13:00	Lunch	
13:00-14:30	Poster Presentation: Session 1, 2, 9, 12	

Y: student presentation

# Oral Sessions

14:30-15:55	<b>Keynote</b>	<b>A new E-<math>\phi</math> system for geo-electromagnetic induction problems</b> <i>Zhengyong Ren, Jingtian Tang</i>
15:55-15:10	S02-04	<b>Review of the electromagnetic migration technique</b> <i>Shuming Wang, Qingyun Di, Siyu Li, Ruo Wang</i>
15:10-15:25	S02-05	<b>The 3D fractional diffusion modeling of electromagnetic slow induction based on FDTD</b> <i>Yanju Ji, Xuejiao Zhao</i>
15:25-15:40	S02-06 Y	<b>Warm start of 3D EM inversion</b> <i>Dikun Yang</i>
15:40-15:55	S02-07 Y	<b>3D L1-norm inversion for geomagnetic depth sounding</b> <i>Shiwen Li, Aihua Weng, Jianping Li, Yanhui Zhang, Yu Tang, Yue Yang</i>
15:55-16:10	S02-08	<b>New technology for delineation of resistive and polarizable kimberlite fissures using TEM method in South Africa</b> <i>Valeriya Hallbauer-Zadorozhnaya</i>
16:10-16:25	S02-09	<b>Study on the rock crack structures and variations based on geoelectric field tidal waveforms</b> <i>Dacheng Tan, Jiancun Xin, Jianjun Wang</i>
16:25-16:35	<b>Tea and Coffee break</b>	
16:35-17:00	<b>Keynote</b>	<b>From NOMan Project to Pacific Array</b> <i>Utada Hisashi</i>
17:00-17:15	S09-10	<b>Preliminary prediction of metallogenic favorable area of metal deposits in Wuyishan metallogenic belt and adjacent areas - Based on 3D result of magnetotelluric sounding explore</b> <i>Gengen Qiu, Hui Fang, Qing Zhong, Qinyin Lv, Meixing He</i>
17:15-17:30	S09-11	<b>Geo-electrical structures of QP geothermal field, southwest Tibet</b> <i>Lanfang He, Ling Chen, Dorji, Hongfei Liu, Xuefeng Zhao, Rujun Chen, Bayi Xiao</i>
17:30-18:00	<b>Discussion I</b>	
18:30-20:00	<b>Dinner</b>	
20:00-21:00	<b>Geo-electromagnetic Committee Meeting</b>	



Saturday, 11 November, 2017		
08:30-08:55	<b>Keynote</b>	<b>3D MT inversion modeling considering galvanic distortion matrices</b> <i>Wolfgang Soyer, Randall Mackie, Federico Miorelli</i>
08:55-09:10	S05-12	<b>Adaptive regularized three-dimensional magnetotelluric inversion based on LBFGS Quasi-Newton method</b> <i>Shuai Ruan, Ji Tang, Xuben Wang, Xiaobin Chen, Yan Zhan</i>
09:10-09:25	S05-13 Y	<b>Multisource-multifrequency 3D CSEM inversion</b> <i>Wei Wan, Xingong Tang, Qinghua Huang</i>
09:25-09:40	S05-14	<b>A GUI client software for magnetotelluric's 3D inversion</b> <i>Xiaobin Chen, Zhongyin Liu, Juntao Cai, Guoze Zhao, Ji Tang</i>
09:40-09:55	S05-15 Y	<b>Three-dimensional magnetotelluric inversion based on the adaptive Vector finite element method</b> <i>Ce Qin, Xuben Wang, Ning Zhao</i>
09:55-10:10	S05-16 Y	<b>Three dimensional forward simulation of a plane wave electromagnetic field using Hybrid technique</b> <i>Bello Musa A., Jianxin Liu, Rongwen Guo, Zhenwei Guo</i>
10:10-10:20	<b>Tea and Coffee break</b>	
10:20-10:45	<b>Keynote</b>	<b>Imaging the subsurface fault systems with the magnetotelluric surveys in the eastern Ilan plain of NE Taiwan</b> <i>Ping-yu Chang, Chow-son Chen</i>
10:45-11:00	S11-17	<b>Microseismic ground motion triggers magnetic pulsations</b> <i>Chieh-hung Chen, Jing-yi Lin, Cheng-horng Lin, Peng Han, Chunrong Chen, Jann-yenq Liu, Yongxin Gao</i>
11:00-11:15	S11-18	<b>A try to predict earthquake: a geo-resistivity method</b> <i>Xuebin Du, Zhanghui An, Junsong Sun</i>
11:15-11:30	S11-19	<b>The seismo-ionospheric data processing techniques and application research in China</b> <i>Xuemin Zhang, Jing Liu, Rui Song, Jianhui He, Wenyu Lou, Zeren Zhima, Xinyan Ouyang, Dulin Zhai</i>
11:30-12:00	<b>Poster Introduction: Session 3, 4, 5, 11</b>	
12:00-13:00	<b>Lunch</b>	
13:00-14:05	<b>Poster Presentation: Session 3, 4, 5, 11</b>	

# Oral Sessions

14:05-14:30	Keynote	<b>Upper mantle giant high conductivity zone in Northwest Tianshan - West Junggar area imaged by MT data</b> <i>Yixian Xu, Bo Yang, Ying Liu, Anqi Zhang, Sheng Zhang, Wencai Yang</i>
14:30-14:55	Keynote	<b>Piecewise-constant model inversion based on sparse constraints in Haar wavelet domain</b> <i>Yunhe Liu, Changchun Yin, Colin G.Farquharson, Bo Zhang, Xiuyan Ren</i>
14:55-15:10	S04-20 Y	<b>Joint inversion of 1D magnetotelluric and surface-wave dispersion data with NSGA-SBX</b> <i>Pingping Wu, Handong Tan, Miao Peng, Mao Wang, Huan Ma</i>
15:10-15:25	S04-21	<b>The application of hybrid Monte Carlo to LOTEM</b> <i>Simon Carter, Lei Zhou, Liangjun Yan</i>
15:25-15:40	S04-22 Y	<b>Research on noise suppression method of MCSEM data combined with EMD and Wavelet</b> <i>Shan Jiang, Yanchao Zhao, Shanqing Jiang, Suyi Li</i>
15:40-15:55	S04-23	<b>EMD-based denoising of multi-transient electromagnetic (MTEM) signal and its time-frequency (TF) processing in 2-D and 3-D using generalized Stockwell transform (GST) and dynamic autoregression (DAR) model</b> <i>Muhammad Younis Khan, Guoqiang Xue, Hai Li, Yu Gang, Weiyang Chen</i>
15:55-16:10	S04-24	<b>Application research of magnetotelluric signal to noise identification and separation based on IITD and FCM</b> <i>Jin Li, Xian Zhang, Jingtian Tang, Huan Yan, Zhengyong Ren, Jin Cai</i>
16:10-16:25	S04-25	<b>Parallel constrained inversion of 2D magnetotelluric data based on artificial fish swarm algorithm</b> <i>Zuzhi Hu, Zhanxiang He, Wencai Yang, Juan Liu, Yunxiang Liu, Xiangyun Hu</i>
16:25-16:35	<b>Tea and Coffee break</b>	
16:35-16:50	S04-26 Y	<b>2D magnetotelluric inversion based on fuzzy cluster membership degree constraint</b> <i>Xiucheng Peng, Peng Yu</i>
16:50-17:05	S03-27	<b>Surface-to-broehole TFEM data acquisition system development and field test</b> <i>Gang Yu, Zhanxiang He, Zhigang Wang, Yang Cao</i>
17:05-17:20	S03-28 Y	<b>Research on overhauser sensor excitation coil for TEM</b> <i>Bingjie Bai, Haobin Dong, Jian Ge, Huan Liu, Cheng Zhang, Wang Luo</i>
17:20-17:35	S03-29	<b>3D MT configuration and ADU-08e system</b> <i>Yun Ma</i>
17:35-18:00	<b>Discussion II</b>	



Sunday, 12 November, 2017		
08:30-08:55	Keynote	<b>Lithospheric deformation of eastern Tibetan plateau and its influence on the tectonics of surroundings</b> <i>Denghai Bai, Jiwen Teng, Xiaobing Ma, Yongli Yan, Xin Li, Shuai Xue, Chenjing Li, Xiangru Kong</i>
08:55-09:10	S06-30 Y	<b>The explanation and process of anomalous magnetotelluric phases - a case study in the Cona graben</b> <i>Gang Wang, Wenbo Wei</i>
09:10-09:25	S06-31	<b>Seismogenetic context of the Jiuzhaigou Ms7.0 earthquake in Sichuan Province inferred from three-dimensional magnetotelluric imaging</b> <i>Xiangyu Sun, Yan Zhan, Xiaobin Chen, Guoze Zhao, Lingqiang Zhao, Tengfa Cui, Zhongyin Liu</i>
09:25-09:40	S06-32	<b>New magnetotelluric and seismic constraints on the three-dimensional lithospheric structure beneath Namche Barwa, eastern Himalayan syntaxis</b> <i>Miao Peng, Changhong Lin, Handong Tan, Zhiqin Xu, Zhonghai Li, Wenxin Kong, Tuo Tong, Mao Wang, Weihua Zeng</i>
09:40-09:55	S06-33 Y	<b>3D magnetotelluric (MT) imaging of resistivity structure of the South China Block insights into its formation and evolution</b> <i>Shan Xu, Martyn Unsworth, Xiangyun Hu, Walter D. Mooney</i>
09:55-10:05	<b>Tea and Coffee break</b>	
10:05-10:30	Keynote	<b>An overview of the electromagnetic resource exploration group (EMREX) at the Colorado School of Mines</b> <i>Andrei Swidinsky</i>
10:30-10:45	S12-34	<b>Rediscussion on anti-interference performance of correlation identification</b> <i>Yanzhong Luo</i>
10:45-11:00	S12-35	<b>A magnetotelluric study on the lithospheric deformation mechanism of northern Qaidam Basin</b> <i>Letian Zhang, Wenbo Wei, Sheng Jin, Gaofeng Ye, Chengliang Xie, Xianrong Chen, Baochun Li</i>
11:00-11:15	S03-36	<b>Ultra-wideband MT (UMT) system</b> <i>Leo Fox</i>
11:15-11:30	S03-37	<b>Wireless electro-magnetic method project and its application research</b> <i>Yong Liu, Yali Kong, Geming Zeng, Kui Ding</i>
11:30-12:00	<b>Poster Introduction: Session 6, 7, 8, 10</b>	
12:00-13:00	<b>Lunch</b>	
13:00-14:00	<b>Poster Presentation: Session 6, 7, 8, 10</b>	

# Oral Sessions

14:00-14:25	Keynote	<b>A Fit-for-purpose electromagnetic system for reservoir monitoring and geothermal exploration</b> <i>Kurt M. Strack, Ingo M. Geldmacher</i>
14:25-14:40	S07-38	<b>A new high-powered marine CSEM exploration system: Preliminary results from the Southern China sea</b> <i>Ming Luo, Yuguo Li, Fujun Qi, Jianxin Pei, Ming Li, Jialin Chen</i>
14:40-14:55	S07-39	<b>Marine controlled-source electromagnetic detection and imaging of hydrates in Qiongdongnan Basin, South China Sea</b> <i>Jian'en Jing, Ming Deng, Qingxian Zhao, Xianhu Luo, Guanghong Tu, Kai Chen, Meng Wang</i>
14:55-15:10	S07-40	<b>The induced electromagnetic field associated with three-dimensional ocean waves in a sea of finite depth</b> <i>Baoqiang Zhang, Jianxin Pei</i>
15:10-15:25	S07-41	<b>The application of time frequency electromagnetic method in the exploration of the inner structure of deep carboniferous system in north Xinjiang area</b> <i>Xiaodong Suo, Zhanxiang He, Zuzhi Hu, Xuejun Liu</i>
15:25-15:40	S10-42 Y	<b>Application of ground penetrating radar in urban underground pipeline detection</b> <i>Zhen Qin, Leilei Zheng, Haibo Wu, Fupeng Hu</i>
15:40-15:50	<b>Tea and Coffee break</b>	
15:50-16:05	S08-43	<b>Continuous TDEM monitoring for shale gas fracturing</b> <i>Liangjun Yan, Xiaoxiong Chen, Xingbin Xie, Lei Zhou, Zhongxing Wang, Wenbao Hu</i>
16:05-16:20	S08-44	<b>Electromagnetic method in the exploration of natural gas hydrate in the Qilian Mountain Permafrost of China</b> <i>Da Lei, Shuming Wang, Hui Fang, Dawei Yao, Liangyong Yang</i>
16:20-16:35	S08-45	<b>The application in the northern South China Sea with MCSEM</b> <i>Weibin Sun, Yang Cao, Yao Lu, Kai Chen</i>
16:35-16:50	S08-46	<b>Geoelectrical characteristics on and off oil wells and their relations to reservoir properties</b> <i>Baihong Wen, Junheng Wang, Hui Yang, Qiang Wei, Chunbao Peng, Xiaojie Si</i>
16:50-17:05	S08-47 Y	<b>The application of MT 3D inversion for deep electrical structure research of the Xiangshan Volcanic Basin in Jiangxi province</b> <i>Hui Yu, Juzhi Deng, Hui Chen</i>
17:05-17:35	<b>Closing Remarks</b>	





## Session 01: Petrophysics and experiment

10 November, 13:00-14:30, 4th Floor Huibin Hotel

S01-P01 Y	<b>Complex resistivity low-frequency polarization research of sandstone in displacement process</b> <i>Xiaolong Tong, Liangjun Yan, Kui Xiang, Gang Tian</i>
S01-P02 Y	<b>Study on the physical influence factors of frequency dependent coefficient</b> <i>Tohniyaz Tunyaz, Yanjun Chang</i>
S01-P03 Y	<b>Dehydration kinetics of natural chlorite</b> <i>Kewei Shen, Duojuan Wang, Tao Liu</i>
S01-P04 Y	<b>Research of constraining method of upper mantle temperature based on electrical structure model</b> <i>Baochun Li, Letian Zhang, Gaofeng Ye, Wenbo Wei, Sheng Jin, Chengliang Xie, Xianrong Chen</i>

## Session 02: EM theory and method

10 November, 13:00-14:30, 4th Floor Huibin Hotel

S02-P05 Y	<b>AEMT capacitance sensing device</b> <i>Wangpeng Ma, Xinmin Wu, Yaxin Yang, Qiyan Li, Junpin Zeng, Longfu Yang</i>
S02-P06 Y	<b>The application of independent component analysis in the elimination for cultural noise in MT data</b> <i>Xiaoling Cao, Liangjun Yan</i>
S02-P07 Y	<b>Power spectrum analysis of data in AEMT</b> <i>Longfu Yang, Xinmin Wu, Yaxin Yang, Wangpeng Ma, Junping Zeng, Qiyan Li</i>
S02-P08 Y	<b>Analysis of stacking times in field measurements by EH4</b> <i>Junping Zeng, Xinmin Wu, Yaxin Yang, Wangpeng Ma, Qiyan Li, Longfu Yang</i>
S02-P09	<b>Magnetotelluric signal processing based on orthogonal matching pursuit and mathematical morphology filtering</b> <i>Guang Li, Jingtian Tang, Jin Li, Xiaoqiong Liu</i>
S02-P10	<b>Audio magnetotelluric noise suppression based on stagewise orthogonal matching pursuit</b> <i>Jin Li, Huan Yan, Jingtian Tang, Xian Zhang, Guang Li, Chong Zhou</i>
S02-P11 Y	<b>WinGlink inversion of air electric field electromagnetic method data</b> <i>Qiyan Li, Xinmin Wu, Yaxin Yang, Wangpeng Ma, Junpin Zeng, Longfu Yang</i>

# Poster Sessions

S02-P12	<b>AEMT of finite element modeling</b> <i>Xinmin Wu, Yixin Ye, Wangpeng Ma, Qiyan Li, Junping Zeng, Longfu Yang</i>
S02-P13 Y	<b>Grey Wolf Optimizer Algorithm for the inversion of magnetotelluric data</b> <i>Siyu Li, Shuming Wang</i>

## Session 03: EM instruments and observation techniques

11 November, 13:00-14:05, 4th Floor Huibin Hotel

S03-P14	<b>New type deployed marine controlled source electromagnetic transmitter system and its experiment application</b> <i>Meng Wang, Ming Deng, Zhongliang Wu, Xianhu Luo, Jian'en Jing, Kai Chen</i>
S03-P15	<b>A study of making low-cost, modularized magnetotelluric system</b> <i>Hanlun Hsur, Ping-yu Chang, Hwei-guo Zhou, Shin-ru Chen</i>
S03-P16	<b>The study and application of wireless communication system for emergency rescue</b> <i>Zhongyi Ding, Yali Kong, Min Shu</i>
S03-P17	<b>Research of design method for medium and small power geological transmitter</b> <i>Heng Wang, Lei Cheng, Miao Yang, Shan Deng</i>
S03-P18 Y	<b>Design of marine DC resistivity moving platform simulation system for identification of flammable ice</b> <i>Zhilong Yang, Changchun Yin, Xiaoyue Cao, Zhejiang Hui, Jiao Zhu, Kaifeng Man</i>
S03-P19	<b>Design and application of a seismic electromagnetic disturbance instrument</b> <i>Yali Kong, Wenbin Li, Geming Zeng, Kui Ding</i>
S03-P20	<b>The development of lightweight and low noise inductive magnetic sensor</b> <i>Wenbin Li, Yali Kong, Li Hu</i>
S03-P21	<b>SQUID based full tensor gradiometer for airborne exploration</b> <i>Liangliang Rong, Shulin Zhang, Jun Wu, Longqing Qiu, Yongliang Wang, Guofeng Zhang, Xiaoming Xie</i>
S03-P22	<b>New progress of ocean bottom electromagnetic receiver and its application in gas-hydrate investigation, petroleum exploration and underwater target detection</b> <i>Kai Chen, Ming Deng, Qingxian Zhao, Xianhu Luo, Gang Yu, Weibin Sun, Jianye Su</i>
S03-P23	<b>Research on electromagnetic detection emission system for spread spectrum code</b> <i>Shiqiang Li, Guoqiang Liu, Yaning Han, Laifu Zhang, Yanhong Li, Yun Tian, Hong Yang, Xing Xu</i>
S03-P24	<b>A magnetotelluric system suitable for low frequency electromagnetic research</b> <i>Geming Zeng, Yangyong Zhang, Yubing Fan, Yali Kong</i>
S03-P25	<b>Controlled source electromagnetic gradient measurement and imaging method</b> <i>Changsheng Liu, Ming Zhang, Peng Liu, Lili Kang, Haigen Zhou, Teng Liu, Tongyang Ren, Yao Yao</i>



## Session 04: Data processing and imaging

11 November, 13:00-14: 05, 4th Floor Huibin Hotel

S04-P26 Y	<b>A new velocity estimation method for ground penetrating radar</b> <i>Xiangyang Dai, Wei Xue, Yan Luo, Zhenxing Chen</i>
S04-P27 Y	<b>Study on fracture resolution by magnetotelluric method</b> <i>Zujian Liu, Wenbo Wei</i>
S04-P28	<b>Application of L-curve in data processing</b> <i>Aihua Weng, Yanhui Zhang, Shiwen Li, Jianping Li, Yu Tang, Yue Yang, Xue Zhou</i>
S04-P29	<b>Quantitative uncertainty evaluation method for inversion results of the magnetotelluric sounding</b> <i>Xianrong Chen, Letian Zhang, Sheng Jin, Wenbo Wei, Gaofeng Ye, Chengliang Xie, Baochun Li</i>
S04-P30 Y	<b>Application of FEniCS in 2D MT finite element forward simulation</b> <i>Kai Feng, Xuben Wang, Ce Qin, Jiasong Guo</i>
S04-P31 Y	<b>Two-dimensional magnetotellurics forward modeling by adaptive finite element using unstructured meshes</b> <i>Jiasong Guo, Xuben Wang, Ce Qin, Kai Feng</i>
S04-P32	<b>Electromagnetic noise reduction method of grounded electrical source airborne transient electromagnetic signal based on stationary wavelet transform</b> <i>Dongsheng Li, Yanju Ji</i>
S04-P33 Y	<b>Estimation of stable strike direction based on phase tensor decomposition</b> <i>Dewei Li, Nian Yu, Xuben Wang, Fangjin Deng</i>
S04-P34 Y	<b>Study on 1D inversion results of Changchun and Manzhouli geomagnetic station</b> <i>Aihua Weng, Yu Tang, Shiwen Li, Jianping Li, Yanhui Zhang, Yue Yang, Xue Zhou</i>
S04-P35	<b>Comparison and analysis of pre-stack and post-stack reverse time migration imaging effect in ground penetrating radar</b> <i>Honghua Wang, Minling Wang, Junbo Gong</i>
S04-P36 Y	<b>Estimation of high-frequency magnetotelluric impedance based on cluster</b> <i>Jiabin Yan, Xuan Zhao</i>
S04-P37 Y	<b>Magnetic and earth electromagnetic two-dimensional joint inversion research</b> <i>Zhengwen Yan, Handong Tan</i>
S04-P38 Y	<b>MT new understanding of the Fuzhou-Yongfeng fault structure</b> <i>Zhongping Zhou, Xiaohui Du</i>

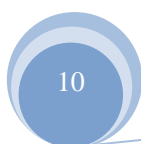
# Poster Sessions

S04-P39 Y	<b>Hierarchical trans-dimensional Bayesian inversion of error correlated magnetotelluric data</b> <i>Chengjin Li, Rongwen Guo, Jianxin Liu, Ya Sun</i>
S04-P40	<b>Modular implementation of sensitivity computation for 2D anisotropic magnetotelluric models</b> <i>Zeqiu Guo</i>
S04-P41	<b>The study of magnetotelluric sounding forward based on the iterative finite element method</b> <i>Tianyi Wang , Zheng Hou</i>
S04-P42	<b>3D MCSEM parallel goal-oriented adaptive finite element modeling</b> <i>Ning Zhao, Xuben Wang, Gang Yu, Zhanxiang He, Xuejun Liu, Weibin Sun, Ce Qin</i>

## Session 05: EM forward modeling and inversion

11 November, 13:00-14:05, 4th Floor Huibin Hotel

S05-P43 Y	<b>Two-dimensional forward modeling and inversion with topography</b> <i>Kai He, Xingong Tang, Gang Tian, Wei Zhao, Dong Li</i>
S05-P44 Y	<b>Research and application of cascade inversion of 2D CSEM data- Myanmar areas</b> <i>Yingli Zhang, Ning Zhao, Gang Yu, Xuben Wang, Zhanxiang He, Xuejun Liu, Weibin Sun, Yang Cao</i>
S05-P45 Y	<b>Three-dimensional numerical simulation of resistivity anisotropy of magnetotelluric method</b> <i>Wenxin Kong, Changhong Lin, Handong Tan, Miao Peng, Tuo Tong, Mao Wang</i>
S05-P46	<b>The study of three-dimensional high-frequency electromagnetic tilting in a complex model</b> <i>Jiabin Yan, Tao Hu</i>
S05-P47 Y	<b>Three-dimensional magnetotelluric finite difference forward for arbitrary electrical anisotropic media</b> <i>Guo Yu, Qinbin Xiao</i>
S05-P48 Y	<b>3D numerical simulation of power system grounding grids transient electromagnetic method using time domain finite-difference method</b> <i>Zhengyu Xu, Zhihong Fu</i>
S05-P49 Y	<b>Analysis of detection ability of high-resistance abnormal body by magnetotelluric sounding method</b> <i>Xinyu Wang, Yurong Mao, Lei Zhou</i>



S05-P50 Y	<b>Three-dimensional magnetotelluric modeling in anisotropic media using edge-based finite element method</b> <i>Tiaojie Xiao, Yun Liu, Yun Wang, Liyun Fu</i>
S05-P51 Y	<b>Research on inversion of resistivity method in two-dimensional axial anisotropic media</b> <i>Jianping Yuan, Handong Tan, Changhong Lin, Miao Peng, Tuo Tong, Mao Wang</i>
S05-P52 Y	<b>3-D modeling of magnetotelluric data considering magnetic permeability</b> <i>Libin Lu , Handong Tan</i>
S05-P53	<b>3D forward modeling of oceanic tidal electromagnetic field and error analysis related to tidal current</b> <i>Huiqian Zhang, Gary Egbert, Qinghua Huang</i>
S05-P54 Y	<b>Adaptive finite element modelling of three-dimensional magnetotelluric fields in general anisotropic media</b> <i>Ying Liu, Zhenhuan Xu, Yuguo Li</i>
S05-P55	<b>The effect of the mesh for the 3D CSEM forward modeling</b> <i>Wenwu Tang</i>
S05-P56	<b>The three-dimensional inversion system for magnetotelluric data with static shift correction and its verification</b> <i>Kun Zhang, Jiayong Yan, Zhendong Liu, Jinhua Zhao, Guang Qi, Hao Hu</i>
S05-P57	<b>An efficient multigrid (MG) method for 3D finite difference frequency domain electromagnetic solutions</b> <i>Rongwen Guo, Jianxin Liu, Egbert Gary, Rong Liu, Changying Ma, Jian Li, Yongfei Wang, Jinliang Li</i>
S05-P58	<b>Finite volume modeling of magnetotelluric fields in 3-D general anisotropic media</b> <i>Bo Han, Yuguo Li, Gang Li</i>
S05-P59 Y	<b>2.5D TEM modeling using Wavelet-Galerkin method</b> <i>Hanbo Chen, Tonglin Li, Rongzhe Zhang, Heng Wang</i>
S05-P60	<b>Three-dimensional numerical simulation of controlled-source electromagnetic based on integral equation method with unstructured grids</b> <i>Feng Zhou, Zhengyong Ren, Jingtian Tang, Huang Chen, Chaojian Chen</i>
S05-P61	<b>AEM fast forward modeling based on parallel higher order quasi-analytical approximation</b> <i>Yongchao Lu, Changchun Yin, Zonghui Gao, Bo Zhang, Xiaoyue Cao, Jing Cai</i>
S05-P62 Y	<b>Joint inversion of two - dimensional regularization of magnetotelluric and gravity</b> <i>Man Guo, Juzhi Deng, Xiao Chen, Hui Chen, Lei Zhang</i>
S05-P63	<b>3D simulation of grounded electrical-source airborne transient electromagnetic responses using finite-difference method</b> <i>Lifeng Mao, Xuben Wang</i>

# Poster Sessions

## Session 06: EM methods used in lithosphere structure

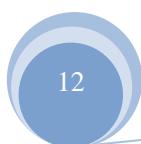
12 November, 13:00-14:00, 4th Floor Huibin Hotel

S06-P64 Y	<b>Preliminary study of deep electrical structure of the Gaoligongshan oblique collisional orogeny</b> <i>Fangjin Deng, Nian Yu, Xuben Wang, Dewei Li, Xulin Cai</i>
S06-P65	<b>Three-dimensional magnetotelluric inversion for the data of Tarim Basin</b> <i>Luolei Zhang, Peng Yu, Yang Xiang, Chongjin Zhao, Takao Koyama</i>
S06-P66 Y	<b>The study of deep electrical structure in end of East Qilian Mountains</b> <i>Lingqiang Zhao, Yan Zhan, Qingliang Wang, Xiangyu Sun, Hao Yang, Xiaobing Chen, Ming Hao</i>
S06-P67	<b>Three-dimensional inversion of magnetotelluric data to investigate the Scandinavian Caledonides in the vicinity of the future ICDP borehole COSC-2</b> <i>Thomas Kalscheuer, Naser Meqbel, Maxim Smirnov, Ping Yan, Maria Garcia Juanatey</i>
S06-P68 Y	<b>Deep electrical structure of Huoshan earthquake zone and its significance</b> <i>Tengfa Cui, Xiaobin Chen, Yan Zhan</i>
S06-P69 Y	<b>Lithospheric electrical structure on the northeastern margin of the Tibetan Plateau revealed by two and three dimensional inversion of magnetotelluric profile data</b> <i>Junxiu Li, Letian Zhang, Sheng Jin, Wenbo Wei, Gaofeng Ye</i>
S06-P70	<b>Deep electrical structure of the transition zone between Southeastern Tibetan Plateau and Western Yangtze Craton: implications for geodynamic evolution</b> <i>Xin Li, Denghai Bai</i>
S06-P71	<b>Lithospheric electrical anisotropy structure derived from 3D MT modeling in Western Junggar, NW China</b> <i>Ying Liu, Andreas Junge, Bo Yang, Alexander Löwer, Marcel Cembrowski, Yixian Xu</i>
S06-P72	<b>Joint analysis of lithospheric of the Delamerian and Lachlan Orogens</b> <i>Yaohua Luo</i>

## Session 07: Marine, airborne and borehole EM methods

12 November, 13:00-14:00, 4th Floor Huibin Hotel

S07-P73	<b>2.5D marine CSEM inversion using nonlinear conjugate gradients algorithm</b> <i>Guangyuan Chen, Libin Du, Jian'en Jing, Ming Deng, Chengxuan Wu</i>
S07-P74	<b>The influence of IP effect on marine CSEM responses</b> <i>Xuezhen Ding, Yuguo Li</i>



S07-P75 Y	<b>2-D marine controlled-source electromagnetic modeling and inversion considering the effect of seafloor bathymetry</b> <i>Ju Feng , Jian'en Jing, Wenqiang Zhao, Jinghong Zhai</i>
S07-P76	<b>An anisotropic inversion method of 1D frequency-domain marine CSEM data</b> <i>Ming Luo, Yuguo Li</i>
S07-P77	<b>Marine controlled source electromagnetic transmitter system</b> <i>Fujun Qi, Linglei He, Zeyu Lu, Jianxin Pei, Yuguo Li</i>
S07-P78 Y	<b>Fast cut-off technology of the falling edge of the time domain airborne electromagnetic emission system</b> <i>Shuchao Song, Shengbao Yu</i>
S07-P79	<b>3D adaptive finite element modeling of marine controlled-source electromagnetic fields incorporating complex seafloor topography</b> <i>Yixin Ye, Yuguo Li</i>
S07-P80	<b>Using borehole-to-surface electrical method to delineate the distribution of complex igneous reservoirs</b> <i>Yanling Shi, Yang Cao, Xuejun Liu, Zhanxiang He, Weibin Dong, Xiaodong Suo</i>

## Session 08: EM methods used in exploring oil, gas and unconventional energy

12 November, 13:00-14:00, 4th Floor Huibin Hotel

S08-P81 Y	<b>Analysis of detecting ability of CSEM in frequency domain with IP effect</b> <i>Jianzhong Cheng, Liangjun Yan, Lei Zhou</i>
S08-P82	<b>3D IE modeling of the frequency domain SBEM with topography</b> <i>Jinghe Li, Zhanxiang He, Changwei Li, Tianya Luo</i>
S08-P83	<b>Application progress of large power marine controlled source electromagnetic exploration system equipment in northern South China Sea</b> <i>Yao Lu, Yang Cao, Weibin Sun</i>
S08-P84 Y	<b>The research and application based on LMS adaptive filtering algorithm of variable step and orthogonal wavelet decomposition in MT data processing</b> <i>Wei Shi, Liangjun Yan, Xingbing Xie, Lei Zhou</i>
S08-P85 Y	<b>The application of basic research in controlled source of Z-axis tipper electromagnetic</b> <i>Fengjiao Xu, Liangjun Yan, Xingbing Xie, Lei Zhou</i>
S08-P86	<b>The simulation of transient electromagnetic based on time domain IP model</b> <i>Lei Zhou, LiangJun Yan, Xingbing Xie, Yurong Mao, Haoran Zhang</i>
S08-P87	<b>Advanced progress of TFEM method for hydrocarbon mapping</b> <i>Zhanxiang He, Gang Yu, Zhigang Wang, Xuejun Liu, Zhi Zhao</i>

# Poster Sessions

S08-P88	<b>Application of integrated geophysical methods in oil and gas prospecting in Jiangnan area</b> <i>Dong Wei, Zhongpo Zhang, Musen Chen, Weimao Wang, Xu Zhao, Yousheng Wang, Yu Tian</i>
S08-P89	<b>Geoelectrical characteristics on and off oil wells and their relations to reservoir properties</b> <i>Baihong Wen, Junheng Wang, Hui Yang, Qiang Wei, Chunbao Peng, Xiaojie Si</i>

## Session 09: EM methods used in exploring geothermal and mineral resources

10 November, 13:00-14:30, 4th Floor Huibin Hotel

S09-P90	<b>Delineation of gold mineralization by 3D AMT in Baishilazi area</b> <i>Weijun Zhao, Rujun Chen, Fei Gao, Fan Zhang</i>
S09-P91	<b>2.5-D fast imaging of the frequency domain CSEM for complex media</b> <i>Jinghe Li, Zhanxiang He</i>
S09-P92 Y	<b>The hybrid of edge FEM and IEM for solving 3D CSEM fields</b> <i>Rong Liu, Jianxin Liu</i>
S09-P93 Y	<b>The boundary processing of DC resistivity element free Galerkin method simulation coupling the finite element method</b> <i>Changying Ma, Jianxin Liu, Rongwen Guo, Ya Sun, Haifei Liu</i>
S09-P94	<b>The imaging of inline dipole-dipole TEM data based on the q-transform</b> <i>Hai Li, Guoqiang Xue, Nannan Zhou</i>
S09-P95 Y	<b>The application of AMT 3D inversion for geothermal exploration in Fengcheng, Jiangxi Province</b> <i>Shuni Chen, Juzhi Deng, Hui Chen</i>
S09-P96	<b>Detectability analysis of frequency CSEM method at weak-signal region</b> <i>Weiyang Chen, Sixu Han, Nannan Zhou, Guoqiang Xue</i>

## Session 10: EM methods used in geo-engineering and environment

12 November, 13:00-14:00, 4th Floor Huibin Hotel

S10-P97 Y	<b>Minzu Basin of central Taiwan with the magnetotelluric surveys</b> <i>Hsin-ju Cheng, Ping-yu Chang</i>
S10-P98	<b>Three-dimensional forward modeling of surface NMR under different loop configurations</b> <i>Bin Chen, Xiangyun Hu, Jianhui Li</i>



S10-P99 Y	<b>Numerical simulation of groundwater pollution based on GPR modeling software</b> <i>Shu Wang</i>
S10-P100	<b>Three-dimensional modeling of controlled-source audio-frequency magnetotellurics for complex geological model</b> <i>Yalu Wang, Qingyun Di, Xuemin Zhang</i>

## Session 11: EM methods used in earthquakes prediction

11 November, 13:00-14:05, 4th Floor Huibin Hotel

S11-P101	<b>Preliminary study of correlation between geoelectric field and earthquake events</b> <i>Zhanghui An, Quan Chen, Yingying Fan, Jun Liu</i>
S11-P102 Y	<b>Integrated probability tomography method by combining CCWT with ECOP tomography of SP data</b> <i>Kaiyan Hu, Qinghua Huang</i>
S10-P103	<b>Discussion on earthquake reflecting ability of underground geo-electrical resistivity observation data from Tianshui Station</b> <i>Wenhao Zeng, Xingyue Yang</i>
S11-P104 Y	<b>Studies on the Geoelectric Index (GEI)</b> <i>Junsong Sun, Xuebin Du, Li Wang, Tengfa Cui</i>
S11-P105	<b>The application of ionospheric TEC anomaly in seismic research</b> <i>Rui Song, Xuemin Zhang, Jing Liu</i>
S11-P106	<b>On the seismo-magnetic phenomena associated with the 2011 Tohoku Earthquake (Mw 9.0): the possible coupling of multiple pre-earthquake phenomena</b> <i>Peng Han, Katsumi Hattori, Qinghua Huang</i>
S11-P107	<b>Electromagnetic declaring: global resounded through the alarm, violent earthquake to be coming! - inspiration from the Russian Earthquake</b> <i>Xiongfei Zeng, Yan Zeng, Jiang Zeng</i>
S11-P108	<b>The perturbation of the critical frequency of the ionospheric layer F2(foF2) over North China in October 7, 2015 caused by strong magnetic storm</b> <i>Wenyu Lou, Xuemin Zhang, Jing Liu</i>
S11-P109	<b>Seismoelectric evanescent EM waves</b> <i>Hengxin Ren, Qinghua Huang, Xiaofei Chen</i>
S11-P110	<b>An improved FMI method of deriving K indices</b> <i>Jianjun Wang, Qi Li, Dongmei Yang, Jinghui Lu</i>

# Poster Sessions

S11-P111	<b>Analysis of ELF electromagnetic radiation anomaly before Wenchuan Ms8.0 earthquake</b> <i>Jianguo Zhang, Xiaodong Yang, Jungang Yan, Xiaoping Wu</i>
S11-P112	<b>Construction of seismic ELF electromagnetic monitoring network and preliminary results of seismic anomaly observation in Yunnan, China</b> <i>Ping Zhang, Guoze Zhao, Ji Tang, Feng Liu, Weihuai Sun, Bing Han, Lifeng Wang, Li Zhang</i>
S11-P113	<b>Anisotropy of lithospheric GIC's vector from a giant geomagnetic storm</b> <i>Xin Zhang, Xuebin Du</i>

## Session 12: Innovation and others

10 November, 13:00-14:30, 4th Floor Huibin Hotel

S12-P114 Y	<b>A forward modeling research of gravity data offset in North China</b> <i>Dandan Li, Xingong Tang, Shuai Hou, Kui Xiang</i>
S12-P115 Y	<b>Using DC potential method to detect the location of the high resistance pipeline</b> <i>Maofei Li, Shucui Liu, Yaoning Liu, Han Liu, Lele Meng, Zhixian Yin, Gongjin Zang</i>
S12-P116	<b>Detection method's preliminary results of concrete reinforcement based on electromagnetic induction and ground-penetrating radar</b> <i>Zhongchang Chen, Hai Liu, Guangyou Fang, Feng Zhou</i>
S12-P117	<b>The formation and evolution of geomagnetic field and its relationship to global climate change</b> <i>Cuixiang Zhong</i>
S12-P118	<b>Weak magnetic field measurement method based on multiple magnetic dipoles model for seismo-electromagnetic satellite</b> <i>Qi Xiao, Jingang Chen</i>
S12-P119 Y	<b>A new denoising method for CSEM data based on least square inversion</b> <i>Yang Yang, Jishan He, Diqian Li, Jingbo Weng</i>
S12-P120	<b>Simulation and experiment study on EM scattering from targets coating with magnetic absorbing material</b> <i>Huiyuan Zhang, Jiayong Dai, Qiping Chen</i>
S12-P121 Y	<b>Estimating reservoir parameters from rock electrical and elastic parameters</b> <i>Meiyao Chi, Xingong Tang, Kui Xiang, Bin Sun</i>
S12-P122 Y	<b>Simulation of 2D anisotropic CSAMT response with IP effect</b> <i>Zhitao Xiong, Xingong Tang</i>

