



Society of Exploration Geophysicists
The international society of applied geophysics



Program of GEM Chengdu 2015

International Workshop on Gravity, Electrical & Magnetic Methods and Their Applications

Chengdu University of Technology

Chengdu, China

April 19-22, 2015

Sunday April 19, 2015

09:00 - 19:00	Registration opens
16:30 - 17:30	Meeting of Technical Session Chairs
17:30 - 19:00	Icebreaker

Monday April 20, 2015

8:00	Registration opens		
08:30 - 10:30	Opening Ceremony and Plenary Session (Chairs: Xiong Li, Yaoguo Li and Xuben Wang)		
08:30 - 09:00	Welcome Addresses		
09:00 - 10:00	SEG Honorary Lecture: Joint inversion of multiphysics data for petrophysical and engineering properties. <i>Aria Abubakar</i>		
10:00 - 10:30	Workshop photo and morning tea		
10:30 - 12:10	<table border="0"> <tr> <td style="background-color: #00aaff; color: white;">Session A: Airborne Gravity and Magnetics (Chairs: Mark Dransfield and Shengqing Xiong)</td> <td style="background-color: #008000; color: white;">Session B: Induced Polarization and Nuclear Magnetic Resonance Methods (Chairs: Valeriya Hallbauer-Zadorozhnaya and Gang Yu)</td> </tr> </table>	Session A: Airborne Gravity and Magnetics (Chairs: Mark Dransfield and Shengqing Xiong)	Session B: Induced Polarization and Nuclear Magnetic Resonance Methods (Chairs: Valeriya Hallbauer-Zadorozhnaya and Gang Yu)
Session A: Airborne Gravity and Magnetics (Chairs: Mark Dransfield and Shengqing Xiong)	Session B: Induced Polarization and Nuclear Magnetic Resonance Methods (Chairs: Valeriya Hallbauer-Zadorozhnaya and Gang Yu)		

10:30 - 10:50	Deriving the full magnetic gradient tensor from tri-axial aeromagnetic gradient measurements. <i>Yao Luo, Ping Wang, Shuling Duan, Haojun Liu, Jinlong Wang, and Zhanfeng An</i>	Complex resistivity characteristics of high TOC marine shale core samples and its applications. <i>Gang Yu, Wenbao Hu, Zhenxiang He, Kui Xiang, Hua Hu, Lanfang He, Tianping Wang, and Pengfei Li</i>
10:50 - 11:10	A case of fluxgate magnetic gradient tensor measurement system on microlight. <i>Yangyi Sui, Hongsong Miao, Zhijian Zhou, Hui Luan, Shengbao Yu, and Jun Lin</i>	Exploration of organic rich shales using a time-frequency electromagnetic method . <i>Xuejun Liu, Chunhe Zhang, Yinming Zhou, YongShan Zhu, Fang Liu, and Xiaofang Xu</i>
11:10 - 11:30	Accuracy of SGL's AIRGrav airborne gravity system from the Kauring test site and results from a regional hydrocarbon exploration survey. <i>Stefan H. P. Elieff, Luise Sander, and Stephan Sander</i>	Nonlinear effects of membrane polarization by constrictivity of pores on DC and TEM geo-electromagnetic measurements. <i>V. Hallbauer-Zadorozhnaya, G. Santarato, N. Abu Zeid, and S. Bignardi</i>
11:30 - 11:50	Reconciling high resolution airborne gravity gradiometry surveys with 3D mine geology models: Sensitivity testing and new approaches ready for greenfields exploration. <i>D. J. FitzGerald, Helen Gibson, and Matt Zengerer</i>	Imaging shallow water bearing structures using three dimensional magnetic resonance tomography with separated loops. <i>Chuangong Jiang, Mike Müller-Petke, Jun Lin, and Ugur Yaramanci</i>
11:50 - 12:10	Large-scale 3D inversion of Bathurst Mining Camp gravity gradiometry data. <i>Le Wan, Martin Cuma, and Michael S. Zhdanov</i>	A new fast interpretation method for NMR pre-detection of water content in tunnels. <i>Wentao Liu, Wei Zhao, Xiu Li, and Zhipeng Qi</i>
12:10 - 13:30	Lunch, exhibition and poster viewing (posters on display all day)	
13:30 - 14:50	Poster Session PA: Gravity and Magnetics - Methodologies and Technologies (Chairs: Jörg Ebbing and Changli Yao)	Poster Session PB: Electromagnetic Modeling (Chairs: Yuguo Li and Binzhong Zhou)
	3D gravity inversion based on sparse recovery. <i>Zhaohai Meng</i>	Research of geomagnetic gradient sounding forward modeling and inversion. <i>Zhaobin Zhang, Gang Zhang, Jiangwei Bian, and Yucong Xu</i>
	Computation of the vector gravity field due to 3D bodies by the finite element method. <i>Fuyu Jiang, Leilei Xie, Wenkai Chang, and Likun Gao</i>	Multi -transient electromagnetic (MTEM) response modeling using finite difference time domain method. <i>Olalekan Fayemi and Qingyun Di</i>
	Modelling of geologic bodies with gravity anomalies based on the fast multipole algorithm. <i>Jun Wang, Xiao-hong Meng, and Fang Li</i>	Finite-difference 3D controlled-source electromagnetic modeling at the rugged seafloor. <i>Chao Ma, Jinsong Shen, Yan Gao, and Shuaishuai Wei</i>

	Joint magnetization vector inversion of surface and borehole magnetic data. <i>Yang Ou and Jie Feng</i>	Numerical simulation analysis of surface-to-borehole TEM based on the finite difference method. <i>Jianlei Guo, Youqiang Zeng, and Xiu Li</i>
	3D data-space inversion of magnetic amplitude data. <i>Zelin Li, Changli Yao, Yuanman Zheng, and Xiaohong Meng</i>	Study on 3D forward modeling for CSELF with staggered-grid finite difference method. <i>Meng Cao, Handong Tan, and Changhong Lin</i>
	Study on aeromagnetic full tensor compensation. <i>Yun Zou, Xiaohong Meng, Lianghui Guo, Xingdong Zhang, and Chunxiao Xiu</i>	3D pseudo-spectral method for TEM modeling in whole-space. <i>Xiao Liu and Handong Tan</i>
	An efficient cross-gradient joint inversion algorithm of gravity and magnetic data with depth weighting and bound constraints. <i>Junjie Zhou, Xiaohong Meng, and Lianghui Guo</i>	3-D simulation of marine CSEM using unstructured FEM meshes. <i>Mingxin Yue and Xiaoping Wu</i>
	Joint inversion of gravity data and seismic transmission-reflection traveltimes. <i>Yizhou Chen, Peng Yu, and Chongjin Zhao</i>	Quadratic finite element for 2-D MT forward modeling using unstructured grids. <i>Zhixuan Li and Xiaoping Wu</i>
	Magnetic inversion of adaptive regularized parameter selection. <i>Chongjin Zhao, Peng Yu, Haohao Lan, and Yang Xiang</i>	Three-dimensional electromagnetic modelling with multi-resolution grid. <i>Maria Cherevatova, Gary D. Egbert, Maxim Yu. Smirnov, and Anna Kelbert</i>
	Error analysis of calculation of total field anomaly due to highly magnetic bodies. <i>Xiaoyu Yuan, Changli Yao, and Yuanman Zheng</i>	Secondary field-based three-dimensional magnetotelluric forward modeling using finite difference method. <i>Shuai Xue, Denghai Bai, and Yongli Yan</i>
	Comparative study on the magnetization direction estimations by magnetic gradient correlation and moment analysis methods. <i>Baihong Wen, Hui Yang, and Kang Liu</i>	Adaptive finite element modeling of direct current resistivity in 2-D generally anisotropic structures. <i>Bo Yan, Yuguo Li, and Ying Liu</i>
14:50 - 15:00	Break	
15:00 - 16:00	Session C: Electromagnetic Instrumentation (Chairs: Kurt Strack and Jingtian Tang)	Session D: Gravity and Magnetic Processing and Interpretation (Chairs: Ed Biegert and Xiaohong Meng)
15:00 - 15:20	Bringing electromagnetics and seismics closer with array electromagnetics: from the borehole to land and marine E&P. <i>Kurt Strack, S. Davydycheva, and Zhiyong Jiang</i>	Progress in time-lapse microgravity monitoring technique and application. <i>Yunxiang Liu and Wenju Zhao</i>

15:20 - 15:40	Initial parameters of voltage stabilized clamping control for TEM transmitting system. <i>Shilong Wang, Yu Yang, Xueyan Hu, and Jun Lin</i>	Regional-residual separation of gravity anomalies using geostatistical approaches. <i>Michel Chouteau, Pejman Shamsipour, and Denis Marcotte</i>
15:40 - 16:00	CEMT: Development and application of a new generation magnetotelluric system in China. <i>Geming Zeng, Xiangyun Hu, Yong Liu, and Yubing Fan</i>	Calculation of gravity terrain and isostatic effects and gravity anomalies in Antarctica and its surrounding areas. <i>Jinyao Gao, Chunguo Yang, Tao Zhang, Zhaocai Wu, Zhongyan Shen, and Wei Wang</i>
16:00 - 16:10	Afternoon tea	
16:10 - 17:10	Session E: Borehole Electromagnetics (Chairs: Kurt Strack and Jingtian Tang)	Session F: Gravity and Magnetic Processing and Interpretation (Chairs: Ed Biegert and Xiaohong Meng)
16:10 - 16:30	Conductively guided borehole radar wave and its potential applications. <i>Binzhong Zhou and Matt van de Werken</i>	The use of gravity gradients and invariants for geophysical modelling - Example from airborne and satellite data. <i>Jörg Ebbing, Wolfgang Szwillus, Johannes Bouman, and Jon Are Skaar</i>
16:30 - 16:50	A fast layered finite element method for simulations of borehole resistivity measurements. <i>Jiefu Chen</i>	Application of amplitude inversion in identification of igneous rocks in a superimposed basin. <i>Shuling Li, Yaoguo Li, and Xiaohong Meng</i>
16:50 - 17:10	A calibration scheme based on variable projection in electromagnetic data inversion. <i>Maokun Li, Fuqiang Gao, Aria Abubakar, and Tarek M. Habashy</i>	Curvature of gravity and magnetic anomalies and curvature of their source bodies. <i>Xiong Li</i>
19:00 - 20:30	An Informal Discussion on Publishing in International Journals - for Geophysicists in China	
Tuesday April 21, 2015		
8:00	Registration opens	
08:30 - 10:15	Plenary Session (Chairs: Xiong Li and Yaoguo Li)	
08:30 - 09:05	Keynote address: Advanced airborne and ground geophysical technology for mineral exploration. <i>Perry Eaton</i>	
09:05 - 09:40	Keynote address: Understanding world-class mineral systems and exploring for mineral deposits at depth using multi-scale and integrated geophysical data: A synthesis from SinoProbe. <i>Qingtian Lü, Danian Shi, Zhendong Liu, Jiayong Yan, Jingtian Tang, and Guoming Jiang</i>	
09:40 - 10:15	Keynote address: Inversion of time domain IP data from inductive sources. <i>Douglas Oldenburg, Seogi Kang, and David Marchant</i>	
10:15 - 10:30	Morning tea	

10:30 - 12:10	Session G: Gravity and Magnetics for Mining and Geothermal Applications (Chairs: Perry Eaton and Xiangyun Hu)	Session H: Electromagnetics for Petroleum Applications (Chairs: Zhanxiang He and Klaus Spitzer)
10:30 - 10:50	Geothermal structure revealed by Curie isotherm surface in Guangdong province. Yufei Xi, Yanxin Wang, Xiangyun Hu, Shuang Liu, Yabo Zhao, and Tianyou Liu	The application of MT technique in geologically complex areas. <i>Weibin Sun, Yongsheng Zhang, and Xiaofang Xu</i>
10:50 - 11:10	Curie depth and inversion of aero-magnetic data with implications for Hazards on Pagan Island, Commonwealth of the Northern Mariana Islands. <i>Trevor Irons, Jared Abraham, Theodore Asch, Rachel Woolf, and Leon Foks</i>	TFEM for oil detection: Case studies. <i>Haiying Liu, Zhanxiang He, and Gelan Wu</i>
11:10 - 11:30	Theta-depth method for the interpretation of magnetic anomaly. <i>Guoqing Ma, Lili Li, Ping Yu, and Danian Huang</i>	A feasibility study of hydrocarbon detection in carbonate reservoir using electromagnetic sounding. <i>Yan Gao, Jinsong Shen, and Zhanxiang He</i>
11:30 - 11:50	Quantitative geophysical interpretation of gravity gradient and magnetic data over a buried carbonatite: The Elk Creek deposit, Nebraska, USA . <i>M. Andy Kass, Benjamin J. Drenth, Leon Foks, and Joseph Capriotti</i>	Advanced 3D imaging of the off-shore hydrocarbon reservoirs from the towed streamer EM data. <i>Michael S. Zhdanov, Masashi Endo, and Johan Mattsson</i>
11:50 - 12:10	Three-dimensional interpretation of geophysical data and geological implications. <i>Li zhen Cheng, Bahman Abbassi, and Pierre Boszczuk</i>	A multi-method virtual electromagnetic experiment for optimizing the survey design: A fictitious CO2 sequestration scenario in Northern Germany. <i>Jana H. Börner, Feiyan Wang, Julia Weißflog, Matthias Bär, Ines Görz, and Klaus Spitzer</i>
12:10 - 13:30	Lunch, exhibition and poster viewing (posters on display all day)	
13:30 - 14:50	Poster Session PC: Gravity and Magnetics - Applications (Chairs: Des FitzGerald and Baihong Wen)	Poster Session PD: Electromagnetics - Petroleum and Mining Applications (Chairs: Li Zhen Cheng and Wenbao Hu)
	Evaluating the wavenumber domain magnetic RTP-L methods from the RTP A-E equation. <i>Yupu Chai</i>	A 3D magnetotelluric inversion system with a theoretical assessment in oil and gas exploration. <i>Kun Zhang and Jiayong Yan</i>
	UAV-borne magnetic survey in Duobaoshan exploration area, Heilongjiang, China. <i>Fei Li, Junfeng Li, Zhiqiang Cui, and Zhili Xu</i>	Borehole-to-surface TFEM technique applications in geologically complex areas. <i>Zhanxiang He, Gang Yu, Guo Zhao, and Tiezhi He</i>

	Improved processing of magnetic anomalies and its application to mineral exploration. <i>Henglei Zhang, Qiaoli Zhou, and Xiangyun Hu</i>	A TEM device for polymetallic sulfides on mid-ocean-ridge seafloor. <i>Wei Xiong, Chunhui Tao, Yixian Xu, Zhenzhu Xi, and Xianming Deng</i>
	Interpretation of magnetic UXO data using a combined analytic signal and Euler method. <i>Guochao Wu, Chong Zhang, and Yuan Yuan</i>	Induced polarization study based on marine rich organic shale in Southern China. <i>Pengfei Li, Liangjun Yan, Gang Yu, Xuejun Liu, and Zhigang Wang</i>
	Moho structure of the South China Sea basin and the surrounding from constrained 3-D gravity inversion. <i>Zhaocai Wu and Jinyao Gao</i>	Application prospects of VTEM helicopter time-domain electromagnetics in China. <i>Yan Luo, Lin Zhu, Zhao Zhao, Zihao Han, Shaolin Lu, and Jean M. Legault</i>
	A preliminary study of magnetic characterization and ore-prospecting significances of intersection-type uranium deposit in Xiazhuang field. <i>Kunpeng Ge, Qingsong Liu, Juzhi Deng, Yang Wang, and Shuzhe Yang</i>	Applications of time-frequency electromagnetic sounding technology. <i>Buqing Shi, Yuyu Meng, Zhangxiang He, Jingcheng Qin, Weibing Dong, and Xuefeng Ran</i>
	High-resolution aeromagnetic investigation for volcanic and seismo-tectonic characterization of the upper crust: Examples from Mt. Etna and Calabria (Italy). <i>F. D'Ajello Caracciolo, I. Nicolosi, R. Carluccio, S. Chiappini, L. Minelli, A. Vecchio, F. Speranza, and M. Chiappini</i>	Multi-disciplinary prospection approach for geothermal resources in Kangding, China. <i>Hong Li, Pengfei Xiao, Jianbao Yu, and Hui Lv</i>
	Crustal and upper mantle structure of Northeastern Tibetan Plateau imaged from EGM2008. <i>Benteng Bi, Xiangyun Hu, Liqing Li, Yingjie Peng, and Xihan Li</i>	3D DC resistivity exploration test on riftzone alteration rock type gold deposit. <i>Jiayong Yan, Yawei Zhang, Kun Zhang, Qingtian Lü, Lusen Shao, Yongqian Zhang, and Zhengdong Liu</i>
	Composition model of the deep crust beneath the Middle and Lower Reaches of the Yangtze River Metallogenic Belt in China, based on seismic velocity, gravity and heat flow data. <i>Yongqian Zhang, Qingtian Lü, and Jinhua Zhao</i>	An audio-magnetotelluric investigation of Lujiang-Zongyang volcanic basin, China. <i>Jingtian Tang, Cong Zhou, Xianying Wang, Xiao Xiao, and Zhengyong Ren</i>
	Novel approach to joint 3D inversion of potential field data using Gramian constraints. <i>Michael S. Zhdanov, Yue Zhu, Masashi Endo, and Yuri Kinakin</i>	Large-scale 3D inversion of airborne electromagnetic data based on the hybrid IE-FE method and the moving sensitivity domain approach. <i>Michael S. Zhdanov, Leif H. Cox, and Masashi Endo</i>
	Investigate structural characteristics using 3D GME Data: An example from Qaidam Basin. <i>Dechun Li, Chaifu Wang, Hongqiang Zhang, Yabo Wang, Zhi Zhao, and Haiying Liu</i>	Application of LOWTEM on detecting remaining oil. <i>Lei Zhou, Liangjun Yan, Xingbing Xie, and Xiaowei Dai</i>

14:50 - 15:00	Break	
15:00 - 16:00	Session I: Electromagnetics and IP for Mining Applications (Chairs: Jean Legault and Changchun Yin)	Session J: Gravity and Magnetic Inversion (Chairs: Michel Chouteau and Danian Huang)
15:00 - 15:20	Passive airborne EM and magnetics over SEDEX lead-zinc deposits at Howard's Pass, Yukon. <i>Jean M. Legault, Shengkai Zhao, Ali Latrous, Nasreddine Bournas, Geoffrey Plastow, and Gabe Xue</i>	3D regularized focusing inversion of gravity data with a new stabilizing functional. <i>Siyuan Sun, Changchun Yin, Yunhe Liu, and Jing Cai</i>
15:20 - 15:40	Podiform chromite exploration using audio magnetotelluric at Luobusa Ophiolite in Southern Tibet. <i>Lanfeng He, Xiumian Hu, Xuefeng Zhao, and Rujun Chen</i>	Joint inversion of gravity and gravity gradient data using a binary formulation. <i>Joseph Capriotti, Yaoguo Li, and Richard Krahenbuhl</i>
15:40 - 16:00	Evolution of IP survey technology in China over the past decade. <i>Dennis Woods and Glenn Chubak</i>	Hybrid strategies for modelling gravity gradient data. <i>R. Ellis, G. Conrad, T. Popowski, and G. Pouliquen</i>
16:00 - 16:10	Afternoon tea	
16:10 - 17:10	Session K: Electromagnetic Modeling and Processing (Chairs: Jean Legault and Changchun Yin)	Session L: Gravity and Magnetic Inversion (Chairs: Michel Chouteau and Danian Huang)
16:10 - 16:30	Joint conductivity-depth imaging for fixed-wing electromagnetic data Bx and Bz. <i>Kaiguang Zhu, Bingbing Li, Qi Wang, and Yuqi Cheng</i>	3D magnetic inversion of 3D magnetic dataset of the Canadian Malartic mine (Canada). <i>Michel Chouteau, Pejman Shamsipour, Sandra Beauchamp, Charles Lafrenière-Bérubé, and Stéphane Perrouy</i>
16:30 - 16:50	Processing of electromagnetic arrays with missing data - Source field structure and source free transfer functions. <i>M. Yu Smirnov and G. D. Egbert</i>	A 3D space-domain approach for magnetic basement depth inversion in the presence of remanent magnetization. <i>Lianghui Guo and Xiaohong Meng</i>
16:50 - 17:10	AEM imaging resolution based on synthetic-aperture technology. <i>Yue Zhao, Yipeng Wang, and Xiu Li</i>	Towards geology differentiation using magnetization inversions. <i>Yaoguo Li and Jiajia Sun</i>
Wednesday April 22, 2015		
8:00	Registration opens	
08:30 - 09:40	Plenary Session (Chairs: Xiong Li and Yaoguo Li)	
08:30 - 09:05	Keynote address: Successful applications of airborne gravity gradiometry. <i>Mark Dransfield</i>	
09:05 - 09:40	Keynote address: Drilling risk assessment through integration of EM and seismic data. <i>Zhanxiang He, Gang Yu, Zhigang Wang, and Xuejun Liu</i>	

09:40 - 09:50	Break	
09:50 - 10:50	Session M: Gravity and Magnetics for Regional Investigation (Chairs: Qingtian Lü and Victoria Tschirhart)	Session N: Electromagnetic Modeling (Chairs: Doug Oldenburg and Xiaoping Wu)
09:50 - 10:10	3-D magnetic modeling of the Ionian Sea deep-sea crust considering remanence directions from plates' paleopoles: Evidence for the oldest in-situ ocean fragment of the world. <i>Fabio Speranza, Liliana Minelli, and Massimo Chiappini</i>	Forward modeling and analyzing for frequency domain semi-airborne EM method. <i>Lili Kang, Lichao Liu, Changsheng Liu, Fengdao Zhou, and Zhihui Shi</i>
10:10 - 10:30	Lithologic mapping test for gravity and magnetic anomalies - A case study of gravity-magnetic anomaly profile in the eastern segment of the China–Mongolia border. <i>Jian Wang, Xiaohong Meng, Zhaoxi Chen, Jun Wang, Sheng Zhang, and Wanqiu Zheng</i>	Finite element method for modeling 3-D resistivity sounding on anisotropic geoelectric media with singularity removal. <i>Tao Song, Yun Liu, and Yun Wang</i>
10:30 - 10:50	New insights from magnetic data on the regional structure and geometry of the southwest Thelon Basin, Northwest Territories, Canada. <i>Victoria Tschirhart and Sally Pehrsson</i>	Full time-domain conversion algorithm from diffusion field to fictitious wavefield for transient electromagnetic method. <i>Zhipeng Qi, Xiu Li, Qingquan Zhi, and Naiquan Sun</i>
10:50 - 11:00	Morning tea	
11:00 - 12:00	Session O: Integration and Joint Inversion (Chairs: Qingtian Lü and Victoria Tschirhart)	Session Q: Electromagnetic Modeling (Chairs: Doug Oldenburg and Xiaoping Wu)
11:00 - 11:20	Crustal setting of the Apennines from joint inversion of seismic tomography and magnetic anomaly data: Evidence from the L'Aquila fault zone (Italy). <i>Liliana Minelli and Fabio Speranza</i>	GPU-based acceleration in modeling 3D time domain electromagnetic problems. <i>Huaifeng Sun, Kai Li, Xiu Li, Xushan Lu, and Zhipeng Qi</i>
11:20 - 11:40	The application of magnetics and TEM in seismic survey in volcanics-covered area. <i>Zhanjun Yang, Wenbo Jiang, Wenyan Feng, and Dong Lei</i>	Three-dimensional controlled-source EM modeling with an energized well casing by finite element. <i>Wenwu Tang, Yaoguo Li, Andrei Swidinsky, and Jianxin Liu</i>
11:40 - 12:00	3D joint inversion of seismic traveltime and gravity data: A case study. <i>Dengguo Zhou, Daniel R. H. O'Connell, Weizhong Wang, and Jie Zhang</i>	

12:00 -13:30	Lunch, exhibition and poster viewing (posters on display all day)	
13:30 - 14:50	Poster Session PE: Electromagnetics - Environmental & Engineering Applications and Technology Development (Chairs: Fabio Speranza and Jianguo Yan)	Poster Session PF: Electromagnetics - Processing and Inversion (Chairs: Jinsong Shen and Trevor Irons)
	HTEM noise frequency characteristics simulation and influencing analysis. <i>Yanzhang Wang, Richard Smith, Kaiguang Zhu, Jun Lin, and Bin Chen</i>	The application and effect of the equivalent source method in the time domain induced polarization. <i>Xiaojuan Li, Xianzheng Zhang, Yang Shao, and Yule Jiang</i>
	Cascaded transmitter with output of 2^n sequence pseudo-random waveform for semi-airborne frequency-domain electromagnetic exploration. <i>Haigen Zhou, Kaichang Xue, Jun Lin, Chang-sheng Liu, Fengdao Zhou, Shuang Wang, and Zhiqiang Bao</i>	Estimation and removal of magnetotelluric static shift. <i>Jun Zhou, Xuben Wang, Juntao Zhang, and Shuai Ruan</i>
	The study of anti-interference capability of emission waveform in MTEM work. <i>Wei Zhao, Xiu Li, and Wentao Liu</i>	Noise removal method for magnetic resonance sounding signal based on principal component analysis. <i>Baofeng Tian, Yue Wang, Yanni Xie, Xiaofeng Yi, and Tiehu Fan</i>
	CSAMT investigation with a new kind of controlled-source acquisition equipment at Chinese southwestern oil and gas field. <i>Xiaodong Luan, Qingyun Di, Zhiguo An, Cheng Xu, Xianxiang Wang, and Wenwei Zhang</i>	Analysis of 2D MT inversion in approximately explaining 3D model. <i>Gen-gen Qiu, Hui Fang, Qing Zhong, Xiao-bo Zhang, Fa-gen Pei, and Yong-zhen Yuan</i>
	Well-hole electromagnetic exploration techniques and its research progress. <i>Zhigang Wang, Zhanxiang He, Guanping Liu, and Jinhe Li</i>	3D regularized focusing inversion of direct current resistivity and induced polarization data. <i>Yixin Ye, Zhiyong Zhang, and Zelin Li</i>
	A fully polarimetric borehole radar and its polarimetric response to synthetic fractures. <i>Jianguo Zhao, Bin Xiong, Zhitao Ma, Xingxing Huang, and Motoyuki Sato</i>	The forward computation and inversion of magnetotelluric fields in two-dimensional non-isotropic medium. <i>Miaoxin Yang, Handong Tan, Xiaohong Meng, and Changhong Lin</i>
	Detecting buried human bodies in graveyard with ground-penetrating radar. <i>Iqbal Fauzi Aditama, Khalid Istiqlal Syaifullah, Durra Handri Saputera, and Widodo</i>	The study of regularization inversion for 2.5 dimension DC resistivity based on minimum support stabilizing factor. <i>Man Li, Zhiyong Zhang, and Wendong Lin</i>

	Research on the resistivity imaging method in karst exploration. <i>Nian Yu, Xuben Wang, Xiangyun Hu, Xuyou Lei, and Jian Li</i>	Inversion of CSAMT data in horizontally layered transversely isotropic media. <i>Jianmei Zhou, Xiu Li, and Zhipeng Qi</i>
	The experiment study of NMR with meter antenna in tunnel engineering. <i>Xiaofeng Yi, Hao Lin, Tiehu Fan, Baofeng Tian, and Jun Lin</i>	Bayesian joint inversion of MT and seismic data based on simulated annealing method. <i>Xiao Chen, Peng Yu, Juzhi Deng, and Luolei Zhang</i>
	AMT forward modeling and the detection application of permafrost thickness in Muli area. <i>Fagen Pei, Hui Fang, Bingrui Du, Qing Zhong, Xiaobo Zhang, Gengen Qiu, and Meixing He</i>	A synthetic study of SNMR tomography with complex data. <i>Bin Chen, Xiangyun Hu, Jianchao Cai, and Warou Assiah</i>
	Monitoring the solute transport with active time constrained time-lapse electrical resistivity tomography. <i>Chenghui Liu and Xiaoping Wu</i>	Joint inversion of transmitter navigation and seafloor resistivity for frequency-domain marine CSEM data. <i>Gang Li and Yuguo Li</i>
14:50 - 15:00	Break	
15:00 - 16:40	Session R: Electromagnetics for Environmental and Engineering Applications (Chairs: Qingyun Di and Andy Kass)	Session S: Integration of Different Geophysical Data Sets (Chairs: Peng Yu and Jie Zhang)
15:00 - 15:20	Mapping coal-beds water-filled zones by using SOTEM. <i>Guoqiang Xue, Weiyang Chen, and Huasen Zhong</i>	Integrated exploration platform: 2D and 3D data visualizations through interactivity. <i>Jason C. Wong, Eun-Jung Holden, Peter Kovesi, Klaus Gessner, and Ruth Murdie</i>
15:20 - 15:40	Geoelectric survey to study ecological problems in the Bologovsky district, Tver region. <i>Dina Kvon and Vladimir Shevvin</i>	Characterizing reservoir parameters through joint inversion of marine controlled source electromagnetic and seismic data. <i>Runlin Du, Zhan Liu, Kaijun Xu, and Ming Li</i>
15:40 - 16:00	Prospecting for groundwater in low permeability formations using the electrical resistivity method: The case of Ikwo and environs, South Eastern Nigeria. <i>Amobi C. Ekwe, Mosto K. Onuoha, and Francis X. O. Ugodulunwa</i>	Joint seismic travelttime and TEM inversion for near surface imaging. <i>Jide Nosakare Ogunbo and Jie Zhang</i>
16:00 - 16:20	Observational evidence of anisotropic changes apparent resistivity before strong earthquakes. <i>Jianguo Zhang, Wei Du, Mingxin Yue, Chenghui Liu, Xiaolong Liang, and Jun Yang</i>	Regional airborne EM and magnetic in Selwyn Basin – An explorer’s perspective. <i>Rob Carne, Jean M. Legault, Richard Phillips, and Julia Lane</i>

16:20 - 16:40	CSAMT investigation for geological structures in a high-level radioactive waste preselected site. <i>Qingyun Di, Zhiguo An, and Zhongxing Wang</i>	Determining mineral prospectivity through integrated geological and geophysical interpretation: Riding the gravity high in the east Kimberley. <i>M. D. Lindsay, A. R. A. Aitken, S. A. Occhipinti, J. Spratt, S. Evans, M. D. Dentith, and J. A. Hollis</i>
---------------	----------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------