

2008-10-24 (Friday)

8:30 -10:30, OCT 24, Fri, Open Session ( with Tea Break )

10:30 -12:00, OCT 24, Fri, Convenors: *Carlo Ungarelli, Pomposiello Cristina*

**Session 4 Applied EM methods for hydrocarbon, geothermal and mineral**

- 10:30 -11:00    **S4\_E07 Review Paper: New Progress of Petroleum EM Prospecting and Cases Study in China**  
*HE Zhanxiang*
- 11:00 - 11:15    **S4\_E01 Various Applications of Applied Controlled Source Airborne Electromagnetic Methods**  
*Richard Smith*
- 11:15 - 11:30    **S4\_E02 Characterizing a Geothermal Reservoir Using Broadband 2-D MT Survey in Theistareykir, Iceland**  
*Gang YU, Norman Allegar, Árni Gunnarsson, HE Lanfang, HE Zhanxiang, Kurt Strack, Helga Tulinius*
- 11:30 - 11:45    **S4\_E03 Geophysical Characterization of the Groß Schönebeck Low Enthalpy Geothermal Reservoir**  
*MUÑOZ Gerard, RITTER Oliver, MOECK Inga, BAUER Klaus*
- 11:45 - 12:00    **S4\_E09 Two-Dimensional Electromagnetic Image of Kamojang Geothermal Field, Indonesia By CSAMT Data**  
*Nurhasan, Enjang Jaenal Mustopa, Wahyu Srigutomo, Doddy Sutarno, Umar Fauzi*

12:00 -12:30, OCT 24, Fri, Convenors: *Oliver Ritter, Hisashi Utada*

**Session 1 EM and integrated geophysical studies of the Earth**

**Part II Crustal and mantle studies, including regions with seismic and volcanic activity**

- 12:00 - 12:15    **S1.2\_E09 Imaging Deep Electrical Resistivity Structure at the Eastern Part of the Aegean Region by Magnetotellurics Method**  
*Tank S Bulent, Honkura Yoshimura, Ogawa Yasuo, Matsushima Masaki, Oshiman Naoto, Tuncer M Kemal, Tolak Elif*
- 12:15 - 12:30    **S1.2\_E17 Geoelectrical Cross-Section of Central Tien Shan and Geodynamic Implications**  
*Sokolova Elena , Berdichevsky Mark, Varentsov Ivan, Rybin Anatoly, Golubtsova Nina, Pushkarev Pavel, Baglaenko Natalia, Batalev Vlad, Matukov Vitaly*

2008-10-25 (Saturday)

8:30 -10:00, OCT 25, Sat, Convenors: *Gad EL-Qady, Bulent Tezkan*

**Session 1 EM and integrated geophysical studies of the Earth**

**Part I Near surface applications, including environmental and engineering studies**

- 8:30 - 8:45    **S1.1\_E08 Three Dimensional Finite Element Modeling of Inloop Transient Electromagnetic Measurements on a Lake**  
*B. Tezkan, L Mollidor, R. Bergers, J Loehken*

- 8:45 - 9:00 S1.1\_E04 Optimization of Galvanic TEM-System Geometry to Decrease Induced Polarization Effect on Transient Electromagnetic Data**  
*Alexander N Shein, Eugene Yu Antonov*
- 9:00 - 9:15 S1.1\_E02 Near-surface Water Content Measurement by Ground Penetrating Radar**  
*LIU Sixin, WANG Chunhui, ZENG Zhaofa, LU Qi, WANG Zhejiang, YI Bing*
- 9:15 - 9:30 S1.1\_E15 CSRMT Measurements in the Frequency Range of 1-250 Khz to Map a Normal Fault in the Volvi Basin, Greece**  
*Mehrdad Bastani, Alexandros Savvaidis, Laust B Pedersen*
- 9:30 - 9:45 S1.1\_E14 Investigation of Cavities and Karstic Features at Al-amal City, Qattamiya, Egypt by Using 3-D Inversion of VES Data**  
*Usama Massoud, Mohamed Abdalla, Gad El-Qady, Fernando Santos*
- 9:45 - 10:00 S1.1\_E09 Surface Velocity Investigation with STEM and Its Application**  
*YAN Liangjun, SU Zhuliu, HU Wenbao*

**Tea Break(10:00 - 10:30)**

**10:30 -12:30, OCT 25, Sat, Convenors: Oliver Ritter, Hisashi Utada**

**Session 1 EM and integrated geophysical studies of the Earth**

**Part II Crustal and mantle studies, including regions with seismic and volcanic activity**

- 10:30 - 11:00 S1.2\_S63 Review Paper: Magnetotelluric Studies of Continent-Continent Collisions**  
*Martyn Unsworth*
- 11:00 - 11:15 S1.2\_E14 The Electrical Conductivity Structure Between the Transitional (near Safod) and Locked (SE of Cholame) Segments of the San Andreas Fault, Including the Source Region of Non-volcanic Tremors**  
*Becken M, Ritter O, Bedrosian P, Weckmann U, Munoz G*
- 11:15 - 11:30 S1.2\_E15 Regional Conductivity Structure of Cascadia: Preliminary Results from 3D Inversion of Usarray Transportable Array Magnetotelluric Data**  
*Prasanta K Patro, Gary D Egbert*
- 11:30 - 11:45 S1.2\_E01 Tectonic and Crustal Evolution in the NE Indian Region from Magnetotelluric Studies**  
*Gokarn S G, Gupta G, Sanabam S S, Walia D*
- 11:45 - 12:00 S1.2\_E10 First Deep Electrical Resistivity Section of Costa Rica**  
*Heinrich Brasse, Gerhard Kapinos, Lutz Mütschard, Guillermo Alvarado, Tamara Worzewski*
- 12:00 - 12:15 S1.2\_E13 CSMT- AMT Sounding of the Fennoscandian (baltic) Shield with the Use of Industrial Power Lines (experiment Fenics-2008)**  
*Zhamaletdinov A A, Shevtsov A N, Korotkova T G, Efimov B V, Barannik M B, Kolobov V V, Prokopchuk P I, Kopynenko Yu A, Kopynenko Ye A, Ismagilov V S, Smirnov M Yu, Vagin S A, Tereschenko Ye D, Vasiljev A N, Gokhberg M B, T Korja*
- 12:15 - 12:30 S1.2\_E20 A Highly Conductive Zone Revealed by an Improved Network-MT Method beneath the Kii Peninsula, Southwestern Japan**  
*Satoru Yamaguchi, Makoto Uyeshima, Hideki Murakami, Sirou Sutoh, Daichi Tanigawa, Tsutomu Ogawa, Naoto Oshiman, Ryokei Yoshimura, Koki Aizawa, Takafumi Kasaya, Ichiro Shiozaki*

2008-10-27 (Monday)

8:30 -10:00, OCT 27, Mon, Convenors: *Martyn Unsworth, WEI Wen-Bo*

**Session 9 Potpourri Session: instrument development, natural source field studies, new projects, etc.**

- 8:30 - 9:00     **S9\_S09** Review Paper: Geophysical Signatures of Microbial Activity  
*Estella A Atekwana*
- 9:00 - 9:15     **S9\_E07** Source Complications in EarthScope Magnetotelluric Data: Challenges and Opportunities  
*Gary D Egbert*
- 9:15 - 9:30     **S9\_E03** Recent Advances in Magnetotelluric Instrumentation and Field Results  
*KOREPANOV Valery, KLYMOVYCH Yevhen, TREGUBENKO Victor*
- 9:30 - 9:45     **S9\_E10** High-Sensitivity EM Prospecting Technique Based on Measurement of Three Magnetic Components of the Natural EM Field  
*Leo Fox, Olex Ingerov, Alex Golyashov, Igor Ingerov, Alex Kolin*
- 9:45 - 10:00   **S9\_E05** Geo-Electromagnetic Data Demand for the Study of Effects of Geo-magnetic Storms on Power Grid  
*LIU Lianguang*

**Tea Break (10:00 - 10:30)**

10:30 -11:15, OCT 27, Mon, Convenors: *Graham Heinson, WU Xiao-Ping*

**Session 2 Laboratory studies of electrical properties of rocks activity**

- 10:30 - 11:00   **S2\_E01** Review Paper: Laboratory Electrical Conductivity Measurement of Mantle Minerals  
*Yoshino Takashi*
- 11:00 - 11:15   **S2\_E02** New Model of Polarization of Rocks: Theory and Analysis  
*Zadorozhnaya Valeriya*

11:15 -12:30, OCT 27, Mon, Convenors: *Claudia Arango, Oriol Rosell*

**Session 7 Theoretical aspects of EM exploration, including data processing, response function analysis and distortion**

- 11:15 - 11:30   **S7\_E03** A Trial for Introducing 6-Element Impedance in Magnetotelluric Method and Its Application in DPR of Korea  
*KIM Kangsop, HU Xiangyun*
- 11:30 - 11:45   **S7\_E09** The Anisotropic Resistivity and the Electric Responses of the Fractured Formation  
*SHEN Jinsong, GUO Naichuan*
- 11:45 - 12:00   **S7\_S18** Electromagnetic Field as a Carrier of Information on a Geological Medium  
*EPOV Mikhail, SHURINA Ella, NEVEDROVA Nina, NIKITENKO Marina*
- 12:00 - 12:15   **S7\_E10** Time-Frequency Analysis on Influence of Low Resistive Shielding Layer in the Exploration of Transient Electromagnetic Field  
*SHI Xianxin, YAN Shu, CHEN Mingsheng, FU Junmei*
- 12:15 - 12:30   **S5\_E13** Use of Swarm Intelligence to Invert Magnetotelluric (MT) Data for Crustal Structure  
*Shalivahan, R K Shaw, Bimalendu B Bhattacharya*

2008-10-28 (Tuesday)

8:30 -10:00, OCT 28, Tues, Convenors: *Alexei Kuvshinov, C. Manoj Nair*

**Session 8 Global induction studies using satellite and ground EM data**

- 8:30 - 8:45     **S8\_E02** Global EM Induction in the Earth: Inverse Time-Domain Modelling Based on the Adjoint Approach  
*J Velínský, Z Martinec, Ondrej Soucek*
- 8:45 - 9:00     **S8\_E06** Comparative Induction Studies with Geomagnetic Observatory Data in Three Epochs  
*Ulrich Schmucker*
- 9:00 - 9:15     **S8\_E08** Internal and External Separation of Geomagnetic Storms Based on the Ground Observation Network and Its Application to 3D-TDEM Modeling of the Conducting Earth  
*TOH Hiroaki, HAMANO Yozo*
- 9:15 - 9:30     **S8\_E05** Pre-Earthquake Ionospheric Anomalies Using Ground-Based GPS Observations  
*MENG Guojie, WANG Min, MA Xinxin, SUO Yucheng, JIN Honglin*
- 9:30 - 9:45     **S8\_E10** Numerical Simulation of the Earthquake Precursors in the Ionosphere Which Are Caused by Electric Fields  
*Maxim Klimenko, Vladimir Klimenko*

**Session 5 2D/3D modeling and inversion of EM data, including joint inversion techniques**

- 9:45 - 10:00     **S5\_E28** Adaptive Quantum Genetic Algorithm and Its Application to 1D Magnetotelluric Data  
*FAN Jianke, SHI Xueming, XIAO Min, YANG Guoshi, ZHANG Xuhui*

Tea Break (10:00 - 10:30)

10:30 -11:30, OCT 28, Tues, Convenors: *HU Wenbao, Pascal Tarits*

**Session 3 Special session on EM exploration in China**

- 10:30 - 11:00     **S3\_S09** Review Paper: Contemporary Deformation of the Tibetan Plateau and the 2008 Wenchuan Earthquake of Ms 8.0, Sichuan, China  
*ZHANG Peizhen, ZHAO Guoze*
- 11:00 - 11:15     **S3\_E01** Geo-Electric Observations Before 2008 Sichuan Earthquake  
*QIAN Fuyue, ZHAO Biru, ZHAO Jian, HUANG Qinghua, SUN Zhenkai, ZHANG Hongkui, LU Jun, ZHANG Ping, HE Shigen, LI Shiyu, ZHAO Yulin*
- 11:15 - 11:30     **S3\_E08** Long-Period Magnetotelluric Soundings in Eastern Tibetan Plateau  
*XIAO Pengfei, BAI Denghai, Valery Korepanov, Ivan M Varentsov*

11:30 -12:30, OCT 28, Tues, Convenors: *Kiyoshi Baba, Tamara Worzewski*

**Session 6 Marine EM studies**

- 11:30 - 11:45     **S6\_E01** Marine Time Domain CSEM: An Emerging Technology  
*Kurt Strack, Norman Allegar, Svein Ellingsrud*
- 11:45 - 12:00     **S6\_E05** Transient Electromagnetic Survey in Shallow Water  
*LI Yuguo, Steven CONSTABLE*
- 12:00 - 12:15     **S6\_E04** The Empirical Mode Decomposition (EMD) Method and Hilbert-Huang Transform (HHT) in MT Data Processing  
*Jin CHEN, Marion JEGEN-KULCSAR*

**12:15 - 12:30**     **S6\_E03 Rigorous 3D Inversion of Marine Magnetotelluric Data in Offshore Hydrocarbon Exploration**  
*Michael S Zhdanov, Le WAN, Arun Kumar, Alex Gribenko, Martin Cuma, Kerry Key, Steven Constable*

## 2008-10-29 (Wednesday)

**8:30 -10:00, OCT 29, Wed, Convenors: Phil Wannamaker, LI Yu-Guo**

### Session 5 2D/3D modeling and inversion of EM data, including joint inversion techniques

- 8:30 - 8:45**     **S5\_E12 MT 3D Inversion - A Recapitulation of a Successful Workshop**  
*Marion P Miensopust, Pilar Queralt, Alan G Jones, the 'MT 3D inversion' workshop attendees*
- 8:45 - 9:00**     **S5\_E06 Edge Finite-element Modeling Using Unstructured Meshes: the 3D MT Example**  
*REN Zhengyong, TANG Jingtian, LIU Changsheng*
- 9:00 - 9:15**     **S5\_E27 3-D Imaging of Mantle Conductivity Based on Inversion of Satellite C-Responses: Proof of Concept**  
*KUVSHINOV Alexei, SEMENOV Alexey, PANKRATOV Oleg, JACKSON Andrew, OLSEN*
- 9:15 - 9:30**     **S5\_E20 Joint Inversion of MT, Gravity and Seismic Data Applied to Sub-Basalt Imaging**  
*Max Moorkamp, Jin Chen, Bjoern Heincke, Marion Jegen, Richard Hobbs, Danie Henderson*
- 9:30 - 9:45**     **S5\_E10 3D Finite-Difference Frequency-domain Modeling of Controlled-Source EM Data Using a Direct Matrix Solver**  
*Rita STREICH*
- 9:45 - 10:00**     **S5\_E02 Two-Dimensional Magnetotelluric Inversion in Combination of Smoothest Model and Sharp Boundary**  
*ZHANG Luolei, YU Peng, WANG Jialin, WU Jiansheng*

### Tea Break (10:00 - 10:30)

**10:30 -12:00 , OCT 29, Wed, Convenors: Josef Pek, John Booker**

### Session 5 2D/3D modeling and inversion of EM data, including joint inversion techniques

- 10:30 - 11:00**     **S5\_E32 Review Paper: Numerical Modelling – Advances And Challenges**  
*Ralph-Uwe Börner*
- 11:00 - 11:15**     **S5\_E29 Two-Dimensional Single and Joint Inversion of Direct Current Resistivity and Radiomagnetotelluric Data: Comparison of Non-linear Model Variance and Resolution Properties**  
*Thomas Kalscheuer, María de los Ángeles García Juanatey, Naser Meqbel, Laust B Pedersen*
- 11:15 - 11:30**     **S5\_E11 CSEM Inversion: Impact of Anisotropy, Data Coverage, and Initial Models**  
*Charlie JING, Ken GREEN, Dennis WILLEN*
- 11:30 - 11:45**     **S5\_E17 Joint Inversion of Magnetotelluric and Gravity Data: 2-D Methodology and Synthetic Examples**  
*ABDELFETTAH Yassine, TARITS Pascal, HAUTOT Sophie*
- 11:45 - 12:00**     **S5\_E34 2.5D Time Domain EM Migration**  
*Guangpin LI, Bruce Hobbs, Zalina Dzhatieva, David Taylor, Johnathan Linfoot*