EMIW 2022

XXV ELECTROMAGNETIC INDUCTION WORKSHOP

11-17 September 2022

Grand Hotel Ontur ▪ Çeşme-Turkey

PROGRAM BOOK

EMIW 2022

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CONTENT

WELCOME MESSAGE

Ute Weckmann
Chair, IAGA Division VI Committee

On behalf of the IAGA Division VI Committee, I am pleased to welcome you to the 25th International Electromagnetic Induction Workshop in Çeşme, Turkey.

The first of our workshops was held 50 years ago in Edinburgh in 1972 and since then has been successfully hosted every two years by an EM community of a different country. This long series has one small flaw, due to the Covid19 pandemic, the 2020 workshop could not take place as planned, but had to be postponed by two years to 2022. During this time, many activities, including planned science, fieldwork, scientific workshops and conferences, were frozen, and personal contact became more difficult and rare.

The covid-19 pandemic also had an influence on the organisation of our Division, so that, for example, terms of the IAGA Division VI Committee (DC) members had to be extended by two years. Normally, my predecessor Nick Palshin would have welcomed you as Chair of our Division and I would have taken over as incoming Chair during our workshop in Çeşme. However, Nick asked me to take over as Chair earlier this year, after Russia's invasion of Ukraine, which entailed significant international restrictions for Russian citizens. Nick was deeply involved in the planning and preparations for this workshop and I personally would like to sincerely thank him for all the time and effort he devoted to our community and the EMIWs during his extended term as Chair and member of the DC.

Finally, after 4 years, the Electromagnetic Induction Workshop is taking place again. I am very happy about this because now a personal exchange on scientific questions, developments and innovations are possible again. The programme is full of new ideas and exciting results. I would like to thank all participants for their contributions. On behalf of our Division VI, I would like to express sincere thanks to all the members of the Local Organizing Committee, particularly its Chair, Ahmet T. Başokur, for organising the 25th workshop. Together with the Program Committee and the session conveners, they have put together the programme that you now hold in your hands. Finally, I would also like to thank the reviewers who have already been selected in 2019 and have agreed to present their reviews in Çeşme even after this long time. I would like to acknowledge our sponsors whose support made many aspects of the workshop possible, especially the participation of many PhD students and young professionals. The LOC and Stephan Thiel, together with the Financial Support Committee, have coordinated fundraising and distribution of funds.

On this basis, I wish all of us an inspiring workshop in Turkey with various scientific and social events. But please remember that the pandemic is not over yet. Hopefully, we will all stay safe and healthy by taking to heart the necessary behavioural measures, such as keeping our distance, wearing masks and testing ourselves, so that in the end, we only return with new scientific ideas.

I am looking forward to seeing and talking to you at the workshop. Have a safe trip to Çeşme.

Kind regards.

WELCOME MESSAGE

Ahmet T. Başokur
Chair of LOC

Dear 25th EMIW delegates,

On behalf of the Local Organization Committee, it is my pleasure and honor to invite you to the 25th international Electromagnetic Induction Workshop (EMIW2022), the major event of the EM geophysics community IAGA Division VI. The 25th Workshop will be held on 11-17 September 2022 in Çeşme by institutions and companies from Turkey, represented by a local organizing committee (LOC). This EM Workshop will be the second one organized in Turkey after 42 years; the 5th EM Workshop was held in 1980 and organized by Istanbul University.

The workshop location Çeşme is a Mediterranean resort town on the Aegean seaside. In ancient times, the region was named Ionia and contributed to world history in various ways. It was the main gate point for the migration of the first farmers to Europe starting from 9000 BC during the Neolithic revolution. The biggest and most populated Hellenistic and Roman cities were founded in Ionia. Ephesus was the primary centre for rising of Christianity. St. Paul lived in Ephesus from AD 52 to 54, worked with the congregation, and organized missionary activity in the hinterlands. Emperor Justinian I built the Basilica of St. John in the 6th century AD. The Miletus ancient city is the home of Thales, Anaximander and Anaximenes, the most famous Miletus natural scholars of classical times. In 582 BC, Thales predicted the solar eclipse and produced new theories in astronomy and geometry. Anaximander and Anaximenes formulated the first scientific rule as 'sufficient reason for a natural phenomenon exists in nature'. The term "magnet" originated from the ancient city of Magnesia. The first standard coin (the invention of money) was released in Sardis about 650 BC. The ancient city Aphrodisias was famous for its sculpture school and progress between 1 BC and 6 AC.

The participants of EMIW2022 will have a chance to visit Ephesus and other exciting locations such as St. John Basilica and Ephesus Museum. The Workshop's theme is 'virtue', which is personified by the statue of ancient Goddess Arete found at the Celsus Library, Ephesus. The excursion route crosses the Menderes River, flowing in a series of curves and bends. The term 'meander' derives from the Menderes River.

The Local Organizing Committee (LOC) would like to thank our sponsors: Phoenix Geophysics, CGG, STC NordWest, Metronix and Geothermal Power Plant Investors Association. In addition, we would like to thank Ute Weckmann, Nikolay Palshin, the Financial Support Committee (FSC) chair Stephan Thiel, all members, and everyone in the Program Committee for their hard work. Finally, we would also like to thank Oliver Ritter for maintaining the IAGA Div VI web pages and database of the Workshop and all session conveners for evaluating abstracts and drafting the sessions.

I hope you will enjoy Çeşme and Ephesus.

COMMITTEES

IAGA Division VI Division Committee Members: 2018-2020/22

Members			
Name	Position	Country	Term
Ute Weckmann	Chair	Europe / Germany	2010 - 2026
Kiyoshi Baba	Co-Chair	Asia / Japan	2012 - 2026
Stephan Thiel	Treasurer	Member at large	2016 - 2024
Shimeles Fisseha		Africa / Ethiopia	2016 - 2024
Ana Curcio		South America / Argentina	2018 - 2026
Wiebke Heise		Oceania / New Zealand	2016 - 2024
Anne Neska	Publications Coordinator	Europe / Poland	2018 - 2026
Yuguo Li		Asia / China	2012 - 2022
Pilar Queralt		Europe / Spain	2012 - 2022
C. Kameswara (CK) Rao		Asia / India	2016 - 2024
Martyn Unsworth		North America / Canada	2016 - 2024
Paul A. Bedrosian		North America / USA	2019 - 2026
Juliane Huebert		Europe / UK	2021 - 2030
Widodo		Asia / Indonesia	2021 - 2030
Observers - ex officio (non-voting)			
Nick Palshin	Past Chair	Russia	2022 - 2026
Ahmet T. Basokur	Chair, LOC next workshop (2022)	Turkey	2014 - 2022
Toivo Korja	Chair, LOC past workshop (2018)	Finland	2016 - 2022
Kiyoshi Baba	Chair, LOC subsequent workshop (2024)	Japan	2012 - 2024
Steven Constable	Funding Coordinator, Industry Liaison	USA	2016 - 2022
Oliver Ritter	Webmaster	Germany	2010 - 2022
Sarasija Sanaka	IAGA Social Media Liason	Poland	2022 - 2026
Anna Kelbert	IAGA EC liaison	USA	2021 - 2025

Local Organizing Committee

- Ahmet T. Başokur (Ankara University, chair of LOC)

- Irfan Akca (Ankara University, co-chair of LOC, Local Treasurer, Local WebAdmin)

- Şevket Demirbaş (Chamber of Geophysical Engineers of Turkey, CGET)

- Emin U. Ulugergerli (18 Mart University)

- Gökhan Göktürkler (Dokuz Eylül University)

- Çaglayan Balkaya (Süleyman Demirel University)

- Ertan Pekşen (Kocaeli University)

- Özlem Hacıoğlu (Karadeniz Technical University)

- Tevfik Kaya (Schlumberger Turkey)

- Erhan Erdogan (Phoenix Geophysics)

Program Committee for the Workshop in 2022

Members		
Name	**Position**	**Country**
Ute Weckmann	Chair	Germany
Ahmet Tuğrul Basokur	Co-Chair	Turkey
Kyioshi Baba	Publishing coordinator	Japan
Yuguo Li		China
Anne Neska		Poland
Takao Koyama		Japan
Zhengyong Ren		China
CK Rao		India
Maria Smirnova		Germany
Sabri Bulent Tank		Turkey
Anna Kelbert		USA
Banafsheh Habibian Dehkordi		Iran
Emin Candansayar		Turkey
Nick Palshin	ex-officio	Russia

Financial Support Committee for the Workshop in 2022

Members	
Name	**Position**
Stephan Thiel	Chair FSC - DC Treasurer
Kiyoshi Baba	Co-Chair FSC - DC Co-Chair - Chair of subsequent LOC
Ute Weckmann	DC Chair
Steven Constable	Funding Coordinator
Ahmet Tuğrul Basokur	Chair of present workshop LOC
Toivo Korja	Chair of previous LOC
Irfan Akca	Treasurer from LOC (non-voting member)

SESSIONS AND DESCRIPTIONS

Sessions Overview

Session 1: Instrumentation, Sources and Data Processing

Conveners: Anne Neska, Erhan Erdoğan

This session solicits contributions on EM data processing, source field analysis, instrumentation, and field practice. We welcome contributions on all aspects of data processing, including theory and practical applications. Development and application of time lapse observations (monitoring) of transfer functions and other parameters as well as new approaches to estimation of transfer functions and their uncertainty can be presented here. We also solicit studies on source fields, whether controlled or uncontrolled. This includes characterization of external source spatial structure and temporal variability, novel (distributed) transmitter configurations, and effects of finite spatial-scale sources (natural and anthropogenic) on transfer functions. Contributions on new instrumentation and field practice and related methodological developments are also appropriate for this session. Studies of sensor fidelity either by noise level analysis or by field comparison with other sensors are appropriate. Sensors can include ohmic or capacitively coupled electrodes, magnetometers, and any other instruments whose inter-comparison with EM data demonstrates new insights.

Session 2: Theory, Modelling and Inversion

Conveners: Anna Kelbert, Jochen Kamm

The geo-electromagnetic phenomena are fundamentally governed by Maxwell's equations. This session covers all aspects of theory, modelling and inversion in which Maxwell's equations are applied to study the electric properties of the Earth. We invite contributions on advances in electromagnetic (EM) theory, analytic and numerical solutions, physical modelling, imaging and inversion algorithms, software implementations, as well as case studies related to the above topics. We further welcome methodological contributions, which solve integrated geoscientific problems or provide new insights into multi-disciplinary data integration, complex Earth medium modelling, 3D/4D inversion algorithms. Initiatives such as open source software, that benefit the community at large, and works that make good use of emerging technologies, like data mining, machine learning and cloud computing, are also warmly invited.

SESSIONS AND DESCRIPTIONS

Session 3: Exploration, Monitoring and Hazards

Conveners: Wiebke Mörbe, Nikita Zorin

EM methods are widely used for obtaining different properties of the Earth' subsurface (electrical resistivity, magnetic permeability, dielectric constant, or IP parameters) ranging from the shallow near surface down to the upper mantle. Different techniques, field configurations and their combinations are applied for different tasks in exploration, monitoring and hazard assessment. We are pleased to invite researchers to submit abstracts of their works related to recent developments and case studies that highlight the role of EM induction in exploration of minerals, oil and gas, groundwater and geothermal resources, environmental and engineering problems, and natural hazards assessment. We appreciate contributions on different aspects of EM methods and their application. We warmly solicit contributions that emphasize and evaluate the role of EM methods to natural resources exploitation, hazard assessment through EM monitoring both in seismic and volcanic environments as well as in geomagnetically induced currents. Finally, we also encourage contributions addressing the data processing and interpretation of EM exploration techniques aimed at lithological characterization as well as at determination of petrophysical and hydrophysical properties of rocks.

Session 4: Tectonics, Magmatism, Geodynamics

Conveners: Maxim Smirnov, Matthew Comeau

Electromagnetic (EM) methods provide information on the Earth's electrical conductivity, which is sensitive to the presence of saline fluids, melts, temperature and conductive minerals. Fluid processes play a key role at subduction margins and in continental collision zones. Electrical resistivity models make it possible to infer temperature variations and to image shallow and deep magmatic processes, phase transitions and mineralization. Therefore, EM methods play an important role in geophysical studies of major geodynamic processes in the Earth. We invite a wide range of regional and global studies in different tectonic settings, including active continent collision zones, subduction zones, stable tectonic settings and volcanic areas. We encourage submission of multiparameter geophysical-petrological studies, in which electrical conductivity models are used alongside other geophysical methods to provide new insights into tectonics, magmatism and geodynamics.

Session 5: Marine EM

Convener: Jana Börner

Marine EM has wide applications studying the sub-seafloor conductivity structure to investigate fundamental processes as well as resource potential. We invite authors who work on passive and active electromagnetic methods in a marine or amphibious setting. The goal of this session is to promote an open discussions on ideas imbedded in forward modelling studies, on instrument development advances, on progress on data analysis and inversion techniques, and on multidisciplinary interpretation approaches.

SESSIONS AND DESCRIPTIONS

Session 6: Rock and Mineral Resistivity, and Anisotropy

Conveners: Shimeles F Woldemichael, Kritina Tietze

The link between electrical resistivity from the laboratory/outcrop scale to lithosphericasthenospheric scale is challenging due to several factors (sampling procedure, local heterogeneity, anisotropy on multiple scales, geological structure, coupling between rocks and fluids, etc.). Despite major experimental, theoretical and modelling advances a remaining future goal is the development of meaningful experiments and models that allow us to identify and quantify the relationship between causative processes and electrical rock resistivity on different scales and in different environments (P,T, fluids). This is a critical step in order to unravel the complex evolution and dynamics of the earth's lithosphere-asthenosphere and also to develop predictive capabilities for energy applications. In this session, we therefore welcome studies that adopt novel approaches and combined methodologies using experimental and numerical methods in the laboratory and the field related to rock and mineral resistivity, as well as developments in the study of electrical anisotropy.

Session 7: Global And Planetary Studies

Conveners: Jakub Velímský, Takao Koyama

We solicit new contributions on induced electromagnetic fields at a planetary scale. We invite presentation of studies that shed light on the progress in our understanding of global electrical conductivity structures in the Earth´s mantle. Development of new methods of global forward and inverse modelling, use of new transfer functions, joint inversion for ionospheric sources and mantle conductivity, and interpretation of satellite magnetic field data are welcome. New methods that incorporate space physics constraints on the sources of electromagnetic induction at periods relevant to the Earth's mantle conductivity structures are particularly welcome. We also call for studies dedicated to magnetism and induction on other planets.

Session 8: EM Induction Education and Outreach (Poster Session)

Convener: Ute Weckmann

In addition to the advancement and application of electromagnetic induction science, members of IAGA Division VI play critical roles in education and outreach. In terms of education, this work may involve teaching undergraduate or graduate students, supervision of undergraduate or graduate research, or training new scientists how to use electromagnetic equipment. In terms of outreach, it may involve promoting large-scale electromagnetic projects to senior officials or other scientists, writing statements on the socioeconomic importance of electromagnetic induction studies, or providing entertaining visits to high school students. This session, the second of its kind at our electromagnetic workshops, is intended to collect posters highlighting novel, interesting, and/or important experiences from the teaching and outreach of electromagnetic induction. The sharing of ideas and information in these areas will help contribute to the overall public understanding of electromagnetic induction studies.

REVIEW TALKS

Near surface EM technologies – Archaeological and environmental applications

İrfan Akca

Ankara University, Department of Geophysical Engineering, Turkey

Has M.Sc. and Ph. D. degrees in Geophysical Engineering (Ankara University). Main research experience is based on inversion, genetic algorithms, distributed and parallel computing, data visualization and enhancing geophysical images using image processing methods. He has been involved in many projects concerning applied geophysical methods including electrical methods, ground penetrating radar and nuclear magnetic resonance. He visited Leibniz Institute for Applied Geophysics (LIAG, Germany) during 2010-2011 as a guest researcher and worked on hydrogeophysical projects. Recently focused on the research of archaeological sites by geophysical methods, particularly ground penetrating radar. Published and presented his research in national and international journals and scientific meetings in collaboration from different countries and research groups. Currently holding a position of researcher/lecturer at Geophysical Engineering Department of Ankara University.

Unravelling the electrical structure of the mantle with ionospheric, magnetospheric and oceanic EM signals

Alexander Grayver

ETH Zurich, Switzerland

Alexander Grayver is a Senior Scientist in the Earth and Planetary Magnetism group at the Institute of Geophysica, ETH Zurich. He obtained a PhD degree in 2013 from the Department of Earth Sciences, Free University of Berlin. Prior to coming to ETH Zurich, he worked as a Research Assistant at the Helmholtz Centre Potsdam GFZ German Research Centre for Geosciences from 2010 to 2014. His research interests are centered around PDE-constrained optimization methods in the context of non-linear inverse problems, numerical modeling of EM induction phenomena from local to global scales and application of machine learning methods to ground and satellite geophysical data. He tries to study the electrical structure of subsurface at different scales, trying to illuminate volcanic systems and geothermal fields, constrain temperature and water content of the upper mantle and transition zone and integrate the electrical conductivity with other geophysical observables in order to build a self-consistent model of Earth's interior.

REVIEW TALKS

EM on Volcanic Islands

Duygu Kıyan

Dublin Institue for Advanced Studies, Ireland

Duygu Kiyan received a B.Sc. (2005) and an M.Sc. (2009) in Geophysics from the Technical University of Istanbul in Turkey, and a Ph.D. (2015) from the National University of Ireland, Galway and the Dublin Institute for Advanced Studies (DIAS) in Ireland. She then worked as a Postdoctoral Research Fellow at DIAS under the support of the 2016 Science Foundation of Ireland Industry Fellowship Programme and the Irish Centre for Research in Applied Geosciences. She was awarded a 5-year Schroedinger Fellowship within the Geophysics Section of DIAS in 2019. Her current research focuses on the application of the magnetotelluric (MT) method for resource characterisation in Ireland, however in recent years she has successfully applied the MT method to study the internal structure of various volcanic islands, notably the Azores and Iceland.

Electromagnetic technology for prospecting unconventional hydrocarbon resources

Liangjun Yan

Yangtze university of China

Liangjun Yan is a professor of geophysics at Yangtze university of China specialized in EM prospecting method studies. He received his BS Degree in applied geophysics from China university of Geosciences Wuhan in 1985, Ms Degree in Geo-detection and Inform Technology from China university of Geosciences Beijing in 1991, and PhD in Geophysics from Zhejiang University. He joined CEMI group under the supervisor Professor Zhadanov in the University of Utah as a visiting scholar from 2010 to 2011 worked on control source EM prospecting methods for unconventional oil and gas. He used to be the dean of the college of geophysics and petroleum resources of Yangtze university from 2008 to 2015. Now he is the executive director of Key Laboratory of Exploration Technologies for Oil and Gas Resources (Yangtze University), Ministry of Education, China, and also is the vice director of key lab of geophysical prospecting, CNPC. He shepherded a team for oil and gas exploration with LOTEM for the first time in southern china in the 1990's, and he has been in charge of several projects of National Key R&D Program of China and NSFC, mainly working on hydrofracturing monitoring and fluid identification with electromagnetic observations. He published extensively on applied geophysics in peer-referred journals, conference proceedings, and technical reports. He served as member of the editing board or associate editor for a number of international journals in geophysics.

REVIEW TALKS

Electromagnetic Modeling Using Adaptive Grids - A Reflection on the Term Geometry

Klaus Spitzer

TU Bergakademie Freiberg, Germany

Klaus studied physics at the University of Göttingen and received his PhD in 1991. He worked as a researcher and lecturer at the Geological Survey in Hannover and the École Polytechnique in Montreal/Canada before he completed his habilitation at the University of Leipzig in 1999. He became a full Professor of Applied Geophysics at the Technical University Bergakademie Freiberg in in 2000 and was head of the Institute of Geophysics and Geoinformatics from 2003 to 2018. His research focus is on geoelectromagnetic methods, particularly on their numerical simulation and inversion. He has been working in close cooperation with the Institute of Numerical Analysis and Optimization of his university for more than 15 years. He was dean/vice dean of the Faculty of Geosciences, Geoengineering and Mining, a member of his university's senate, chairman/designated chairman of the German Research Council Physics of the Earth, elected member of the Review Board Geophysics and Geodesy of the German Research Foundation DFG, and served for more than a decade as a reviewer for the German Academic Exchange Service. In 2007, he became a trustee of the Gerald W. Hohmann Trust for Teaching and Research in Applied Electrical Geophysics (USA). He has been active in chairing and convening sessions at international conferences and hosted and organized several national and international conferences including the 4th International Symposium on Three-Dimensional Electromagnetics in Freiberg 2007. He was associated editor for Acta Geophysica and guest editor for Geophysics, Journal of Applied Geophysics, and Earth, Planets and Space. He has been active as a reviewer for almost all major geophysical journals and several national research foundations and was recently elected as a member of the current IAGA Executive Committee.

REVIEW TALKS

Electromagnetic studies in the Eastern Mediterranean Region with Special Reference to Major Strike-slip Faults

Sabri Bülent Tank

Boğaziçi University, Kandilli Observatory and Earthquake Research Institute, Turkey

Sabri Bülent Tank is currently a faculty member at the Department of Geophysics, Boğaziçi University, Kandilli Observatory and Earthquake Research Institute, İstanbul, Turkey. He got his MSc degree at the Boğaziçi University on the westward drift of the non-dipole part of the Earth's magnetic field. He received his PhD from Department of Earth and Planetary Sciences at the Tokyo Institute of Technology, Japan in 2004, as a Monbusho scholarship (MEXT) fellow. His PhD thesis topic is "Resistivity Structure at the Western Part of the North Anatolian Fault Zone and its Seismogenic Implications". During his post-doctoral research he attended the Volcanic Fluid Research Center at the Tokyo Institute of Technology as a Japan Society for the Promotion of Science (JSPS) fellow where he studied on the ocean bottom electromagnetic (OBEM) data collected both at the Marmara Sea and Pacific Ocean. His research interests include the electromagnetic induction studies performed at active/passive fault zones, volcanoes and geothermal systems.

EXCURSION – EPHESUS TOUR

Excursion: Ancient City of Ephesus

The region has remains back to 9000 BC and has the biggest Hellenistic and Roman cities in the world for example Ephesus, Miletus and Aphrodisias. The burial and church of St. John and House of the Virgin Mary is located in Selcuk. Miletus is an important city in view science history, because Thales, Anaximander, and Anaximenes lived there and presented a view of nature in terms of methodologically observable entities. Aphrodisias was famous for its school of sculpture. The ancient city Hierapolis (Pamukkale) is famous for travertine terrace formations. All mentioned locations are UNESCO World Heritage Sites.

Ephesus

The city is listed in the UNESCO world heritage list since 2015. Ephesus comprises successive Hellenistic and Roman settlements founded on new locations, which followed the coastline as it retreated westward. Excavations have revealed grand monuments of the Roman Imperial period including the Library of Celsus and the Great Theatre. Little remains of the famous Temple of Artemis, one of the "Seven Wonders of the World," which drew pilgrims from all around the Mediterranean. Since the 5th century, the House of the Virgin Mary, a domed cruciform chapel seven kilometres from Ephesus, became a major place of Christian pilgrimage. The Ancient City of Ephesus is an outstanding example of a Roman port city, with sea channel and harbour basin (Ministry of Culture and Tourism). The well known building in the photo is the Library of Celsus which became the symbol of the city. It was built in memory of Tiberius Julius Celsus Polemaeanus, an Ancient Greek who served as governor of Roman Asia (105-107) in the Roman Empire. Celsus paid for the construction of the library with his own personal wealth,and is buried in a sarcophagus beneath it. It is reported that the library held nearly 12.000 scrolls.

EXCURSION – EPHESUS TOUR

Arete (personification of virtue)

The statues in the niches of the columns of Celsus Library are the copies of the originals. The statues symbolize wisdom (Sophia), knowledge (Episteme), intelligence (Ennoia) and virtue (Arete). The photo shows Arete (APETH) which symbolizes the "virtue".

In ancient Greece, virtue meant something of competence. It was called virtuous man who had an Arete, that is, a competent person, who did the work that was suitable for him, who performed his unique function. For example; the blade's Arete is a good cut because the blade is made for this purpose. In the case of human, virtue is defined as follows: "Human activity is not movement, growth, reproduction, because other animal species do so. It is Socrates who uses the word virtue for the activities of human beings which means to fulfill the unique function of each human being in the best way. In this context, according to Socrates, virtue is the realization of actions that is appropriate and original to one's own (Özgüney, T.).

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PROGRAM OVERVIEW

Çeşme EM Induction Workshop Schedule

Begins	Ends	11.Sept Sunday	12.Sept Monday	13.Sept Tuesday	14.Sept Wednesday	15.Sept Thursday	16.Sept Friday	17.Sept. Ssaturday	18.Sept. Sunday
8:30	08:45		Opening remarks	Poster Introductions		Poster Introductions	Poster Introductions	Poster Introductions	
8:45	09:00						03.3.1	04.3.1	
9:00	09:15		Poster Introductions	Review 3 (Kiyan)		Review 5 Tank)	03.3.2	04.3.2	
9:15	09:30						03.3.3	04.3.3	
9:30	09:45		Review 1 (Akca)	Break		Break	Break	Break	
9:45	10:00				Excursion				
10:00	10:15		Poster Session Opening	P2.2		P2.4	P3.2	P4.1	
10:15	10:30								
10:30	10:45		P1.1	02.2.1		02.5.1	03.4.1	05.1.1	
10:45	11:00			02.2.2		02.5.2	03.4.2	05.1.2	
11:00	11:15		01.1.1	02.2.3		02.5.3	03.4.3	05.1.3	
11:15	11:30		01.1.2	02.2.4		02.5.4	03.4.4	07.1.1	
11:30	11:45		Break	Break		Break	Break	Break	
11:45	12:00		01.2.1	02.3.1		03.1.1	03.5.1		Hotel Checkout
12:00	12:15		01.2.2	02.3.2		03.1.2	03.5.2	P4.2	
12:15	12:30		01.2.3	02.3.3		03.1.3	03.5.3		
12:30	14:00	Registration desk opens	Lunch	Lunch/DC Members Meeting	Lunch	Lunch/DC Members Meeting	Lunch	Lunch	
14:00	14:15	Hotel Check-in at Çeşme Grand Ontur	Review 2 (Grayver)	Review 4 (Spitzer)		Review 6 (LIANGJUN)	04.1.1	06.1.1	
14:15	14:30						04.1.2	06.1.2	
14:30	14:45						04.1.3	08.1.1	
14:45	15:00		P1.2, P2.1	P2.3	Excursion	P3.1	P3.3, P5.1	P6.1, P7.1, P8.1	
15:00	15:15								
15:15	15:30								
15:30	15:45								
15:45	16:00		Break	Break		Break	Break	Break	
16:00	16:15	Poster posting	02.1.1	02.4.1		03.2.1	04.2.1		
16:15	16:30		02.1.2	02.4.2		03.2.2	04.2.2	Closing Ceremony	
16:30	16:45		02.1.3	02.4.3		03.2.3	04.2.3		
16:45	17:00		Break	Break		Break	Break		
17:00	17:15	Ice-breaker Cocktail	Discussions	Discussions		Discussions	Discussions		
17:15	17:30								
17:30	17:45								
17:45	18:00								
18:00	18:15								
18:15	18:30			Business Meeting			Business Meeting		
18:30	18:45								
18:45	19:00								
19:00	19:15		WNE (Women's Networking Event)					Workshop Dinner	
19:15	19:30								
19:30	20:00								
20:00	21:00								
21:00	-								

EMIW2022 Program: Oral session, Poster Session, BMs, Social events

Sunday, 11 September, 2022

12:00 - 17:00	Registration & Poster installation
17:00 - 19:00	Ice-breaker Cocktail

Monday, 12 September, 2022

08:30 - 09:00	Opening remarks
09:00 – 09:15	**Poster Introductions**
09:15 – 10:00	Review 1 Near surface EM technologies - Archaeological and environmental applications *Irfan Akca*
10:00 – 10:15	**Poster Session Opening**
10:15 – 11:00	**Poster Session P1.1 - Instrumentation, Sources and Data Processing** **Poster viewing including break in poster hall**

P1.1.01	Theory and practice of Controlled Source Audio-frequency Magneto-Tellurics: discussion on two case studies in France, at the Rochechouart impact structure and at the Strengbach catchment *P. Sailhac, Y. Quesnel, M. Lajaunie, S. Warden, C. Camerlynck, P. Lambert, J.-P. Malet*
P1.1.02	The maximum possible distances to the remote reference when working in medium and high latitudes *D. Epishkin, A. Gubina, E. Shirokova and A. Yakovlev*
P1.1.03	New long-period magnetotelluric measurements to improve ground electric field modelling in the UK during geomagnetic storms *E. Eaton, J. Huebert, C. Beggan, A. Montiel-Alvarez, A. Thomson, C. Hogg and D. Kiyan*
P1.1.04	Hilbert transform of the frequency normalized impedance data: Application to the dispersion relations in magnetotellurics *A.T. Başokur*
P1.1.05	Synchronization optimization providing for MT stations at grid survey *A. Prystai, V. Pronenko and A. Bondarev*
P1.1.06	Smart data selection - Using machine learning for RMT data processing *A. Platz, U. Weckmann*
P1.1.07	Shaky data and where to find them - MT on frozen lakes *C. Patzer, U. Autio and J. Kamm*

Monday, 12 September, 2022

10:15 – 11:00	**Poster Session P1.1 - Instrumentation, Sources and Data Processing** **Poster viewing including break in poster hall**

P1.1.08	Results of FDEM-(CS)AMT test studies on the Alexandrovka area *E. Ermolin, N. Zorin, D. Epishkin and D. Sapunov*
P1.1.09	Distribution of source effects in the high latitude magnetotelluric data *S. Sanaka and Anne Neska*
P1.1.10	On the correctness of using plane-wave assumption and two-channel acquisition systems in MT exploration at high latitudes *D. Yakovlev, E. Pogrebnykh, D. Epishkin and A. Yakovlev*

Oral Session O1.1 - Instrumentation, Sources and Data Processing

11:00 – 11:15	O1.1.1	Archaeological prospecting using drone-towed electromagnetic and magnetic systems *T. B. Vilhelmsen*
11:15 – 11:30	O1.1.2	Identifying the causes for the vertical component geomagnetic field anomaly at Eskdalemuir geomagnetic observatory, Scotland *G. Wang, J. Hübert and K. A. Whaler*

11:30 – 11:45	Coffee Break

Oral Session O1.2 - Instrumentation, Sources and Data Processing

11:45 – 12:00	O1.2.1	From Coast to Coast: Ongoing Magnetotelluric Data Processing for the National-Scale Survey, USMTArray-CONUS South *J. Crosbie, P. Bedrosian and A. Kelbert*
12:00 – 12:15	O1.2.2	ELMAR - the ELectroMAgnetic Recorder *O. Ritter, S. Rettig, R. Schmitt, M. Haxter, C. Müller-Brettschneider and U. Weckmann*
12:15 – 12:30	O1.2.3	Hybrid receiving dipole for broadband electric field measurement *N. Zorin, D. Epishkin, D. Yakovlev and A. Yakovlev*

12:30 – 14:00	Lunch

14:00 – 14:45	Review 2	Unravelling electrical structure of the mantle with ionospheric, magnetospheric and oceanic electromagnetic sources *A. Grayver*

Monday, 12 September, 2022

14:45 – 15:45   **Poster Session P1.2 - Instrumentation, Sources and Data Processing**
Poster Session P2.1 - Theory, Modelling and Inversion

P1.2.01   Measurement of noise characteristics of graphite electrodes in the field and comparison with other types of non-polarizing electrodes
D. Epishkin and N. Zorin

P1.2.02   Aurora: An open source magnetotelluric data processing package in Python linking MTH5 to EMTF XML
K.N. Kappler, G. Egbert, A. Frassetto, L. Heagy, A. Kelbert, L. Keyson, D. Oldenburg, J.R. Peacock and T. Ronan

P1.2.03   Open-source Python software for the visualization of magnetotelluric data and three-dimensional resistivity models
A. T. Başokur

P1.2.04   The effect of radar trace number on tomographic images of cylindrical objects obtained by using GPR
O. Apaydın, T. İşseven, Y. Çıtır, S. Paker and I. Erer

P1.2.05   Full correction of the electric field data biased by the ECR-effects
N. Zorin, D. Epishkin, D. Yakovlev and A. Yakovlev

P1.2.06   Cloud connected low power, low noise systems for LMT & MT
V. Pronenko, K. Strack and A. Prystai

P1.2.07   EM-ACROSS System: Installation at the Kusatsu-Shirane Volcano, Japan
S. Serita, Y. Ogawa, K. Ishizu, K.H. Tseng, T. Kunitomo, T. Minami, H. Ichihara, T. G. Caldwell, W. Heise and E. A. Bertrand

P1.2.08   Towards a AFMAG-capable airborne EM Sensor Platform - Identification of Noise Sources
A. Thiede and M. Becken

P2.1.01   Regularization of VLF inversion using rank order smoothing
G. Karcıoğlu, A. B.Tekkeli, Ü. Avşar, M. A. Üge and M. S. Arslan

P2.1.02   Frequency dependent complex resistivity inversion in 3D from Controlled-Source Electromagnetic data
J. Porte, F. Bretaudeau and J-F. Girard

P2.1.03   Gradient and roughness regularization operators for geophysical inversion on unstructured meshes using L2 and L1 norms
M. Kangazian and C. Farquharson

P2.1.04   1D and 3D Inversion and Modelling of Airborne Transient Electromagnetic and Magnetic Data from Over a Potential Volcanogenic Massive Sulphide Deposit, Cripple Creek, Newfoundland
A. Demirbas and C. G. Farquharson

Monday, 12 September, 2022

14:45 – 15:45	**Poster Session P1.2 - Instrumentation, Sources and Data Processing** **Poster Session P2.1 - Theory, Modelling and Inversion**

P2.1.05   2D U-Net convolutional networks for 1D inversion of magnetotelluric data
M. R. Jevinani, B. H. Dehkordi, M. H. Rohban and I. J. Ferguson

P2.1.06   3D Minimum-structure Inversion for CSEM Problems Using Potentials and Unstructured Tetrahedral Grids
K. B. Kara and C. G. Farquharson

P2.1.07   ModEM software: An update on the improvements, availability, and performance metrics
A. Kelbert, G. Egbert, H. Dong, N. Meqbel and L. Zhongyin

P2.1.08   A MATLAB FE Library for the Simulation and Inversion of EM Problems
J. Blechta, R.-U. Börner, O. Ernst, M. Scheunert and Klaus Spitzer

P2.1.09   3D modeling of CSEM data in the radio frequency band with different sources
S. Schöttle, M. Smirnova, B. Tezkan, P. Yogeshwar and M. Smirnov

P2.1.10   CRT3DMT: A three-dimensional magnetotelluric inversion package with adaptively refined unstructured inversion grid and an application to lithospheric conductivity structure beneath North China
H. Chen, Z. Ren and J. Tang

15:45 – 16:00	Coffee Break

Oral Session O2.1 - Theory, Modelling and Inversion

16:00 – 16:15	O2.1.1	3D inversion of an integrated TEM survey *L. Xiao, G. Fiandaca, P. K. Maurya and A. V. Christiansen*
16:15 – 16:30	O2.1.2	Joint Probabilistic Inversion of 3D Magnetotelluric and Seismic Data in Southeast Australia *M.C. Manassero, J.C. Afonso, S. Özaydin, A. Kirkby, I. Fomin, A.G. Jones and K. Czarnota*
16:30 – 16:45	O2.1.3	Petrophysical-based constrained and joint inversions of magnetotelluric (MT) and gravity data-sets on unstructured tetrahedral meshes *M. Kangazian and C. Farquharson*

16:45 – 17:00	Break
17:00 – 18:00	Discussions
19:00 -	WNE (Women's Networking Event)

Tuesday, 13 September, 2022

08:30 – 08:45	**Poster Introductions**

08:45 – 09:30	Review 3	Electromagnetic Measurements on Volcanic Islands *D. Kiyan*

09:30 – 09:45	Coffee Break

09:45 – 10:30	**Poster Session P2.2 - Theory, Modelling and Inversion** **Poster viewing including break in poster hall**

P2.2.01   UHOMT: A novel 3D finite element Magnetotelluric forward modeling code with unstructured meshes
D. Ruiz-Aguilar and E. U. Gallardo-Romero

P2.2.02   3D Inversion of Controlled-Source Electromagnetic Data using Non-linear Conjugate Gradients
P. Rulff and T. Kalscheuer

P2.2.03   2D and 3D Forward modeling of electromagnetic fields in the time domain using Discontinuous Galerkin Method and Spectral Element Method
B. Valdés-Moreno. M. A. Pérez-Flores and J. D. De Basabe

P2.2.04   Time-dependent adaptive mesh refinement for 3D forward modelling of transient electromagnetic fields in volcanic environments including topography
C. Schneider, K. Spitzer and M. Hort

P2.2.05   A parallel adaptive finite-element method for 3-D large-scale controlled-source electromagnetic forward modelling with hierarchical tetrahedral grids
Z. Liu, Z. Ren, H. Yao, J. Tang, X. Lu and C. Farquharson

P2.2.06   3D EM modeling and inversion with a mixed finite-element and finite-difference approach to handle high topography and bathymetry variations
S. Védrine, R. Rochlitz and F. Bretaudeau

P2.2.07   Multi-scale 3-D conductivity model of the contiguous US from the inversion of MT USArray
F. Munch and A. Grayver

P2.2.08   Joint inversion of magnetotelluric data and receiver functions using Pareto-based swarm intelligence algorithm
E. Büyük and E. Zor

P2.2.09   Development of an efficient 3D inversion algorithm for large-scale MT data
A. Singh and R. Dehiya

P2.2.10   3-D Modeling of Airborne and Land-based Controlled-Source Electromagnetic Data: Comparison on CPU and GPU Platform
İ. Demirci

P2.2.11   POLYEM3D: A flexible 3D CSEM and MT modeling and inversion code
F. Bretaudeau, F. Dubois, J. Porté and S. Védrine

Tuesday, 13 September, 2022

Oral Session O2.2 - Theory, Modelling and Inversion

10:30 – 10:45	02.2.1	True 3D Land CSAMT Modeling *W. Soyer and R.L. Mackie*
10:45 – 11:00	02.2.2	Using deep learning for model error estimation in 3D probabilistic inversion of controlled-source electromagnetic data *M. W. Elías, M. Rosas-Carbajal and F. I. Zyserman*
11:00 – 11:15	02.2.3	Surface geometry inversion of marine CSEM data *X. Lu, C. Galley, P. Lelièvre and C. Farquharson*
11:15 – 11:30	02.2.4	Applying a multi-transmitter hybrid Conjugate Gradient-Occam algorithm to the inversion of 3D mCSEM data *W. Lima, G. Egbert , N. Meqbel, A. Benevides, S. Fontes, E. LaTerra and P. Werdt*
11:30 – 11:45	Coffee Break	

Oral Session O2.3 -Theory, Modelling and Inversion

11:45 – 12:00	02.3.1	Real-time simulation of the electromagnetic field spatiotemporal evolution due to geomagnetic disturbances *M. Kruglyakov, A. Kuvshinov and E. Marshalko*
12:00 – 12:15	02.3.2	HIP-FEM: A Hierarchical, Induced Polarization Finite Element Method for analysis of thin, dispersive, geoelectric features *C.J. Weiss, G.D. Beskardes and A. Darrh*
12:15 – 12:30	02.3.3	3D CSEM inversion data at Campos basin Brazil constrained by seismic and well log *A. Benevides, N. Meqbel, W. Lima, S. Fontes, G. Egbert, P. Werdt and E. La Terra*
12:30 – 14:00	Lunch / DC Members Meeting	
14:00 – 14:45	Review 4	Electromagnetic Modeling Using Adaptive Grids - A Reflection on the Term Geometry *K. Spitzer*

Tuesday, 13 September, 2022

14:45 – 15:45 **Poster Session P2.3 - Theory, Modelling and Inversion**

P2.3.01 Magnetotelluric system NORD
D. Epishkin, A. Yakovlev, D. Yakovlev and N. Zorin

P2.3.02 Well integrity monitoring with electric fields by using hierarchical geo-electric models
G.D. Beskardes and C.J. Weiss

P2.3.03 Magnetotelluric imaging of the Mitidja Basin structure, North of Algeria
N. Kerbadj, A. Bouzid and A. S. Kasdi

P2.3.04 Sensitivity of phase tensors to absolute resistivities in a 3-D world
L. Dambly, F. Samrock, A. V. Grayver and M.O. Saar

P2.3.05 Conductivity structure beneath Australia constrained by 3-D inversion of tippers in spherical geometry
F. Cicchetti, A. Grayver, R. Rigaud, A. Kuvshinov and A. Yoshikawa

P2.3.06 Constraining the 1-D electrical conductivity of the crust and mantle beneath continents by the joint inversion of multi-source electromagnetic transfer functions
R. Rigaud, A. Kuvshinov, A. Grayver, F. Perrier and M. Kruglyakov

P2.3.07 Dual L-shape model: a possible cause of anomalous magnetotelluric phase in central India
K. Raju and P. K. Patro

P2.3.08 Three-Dimensional Inversion of Magnetotelluric Data from the Tarawera Dome Complex, New Zealand
P. Semper, E. A. Bertrand, G. Caldwell, W. Heise, M. Scheunert and K. Spitzer

P2.3.09 Plane wave correction and 3D inversion of tensor CSRMT data
A. Shlykov, A. Saraev, N. Bobrov and B. Tezkan

P2.3.10 Convolutional Neural Networks Applied to 2D and 3D DC Resistivity Inversion
S. Weit, R.-U. Börner, M. Brändel, P. Gödickmeier, R. Gootjes, S. Kost, O. Rheinbach, M. Scheunert and K. Spitzer

P2.3.11 Multivariate statistical analysis of geophysical data and models by neural network approaches
R. Vadoodi, T.M. Rasmussen and M. Abdolmalek

P2.3.12 Application of the skew parameters in 1-D and 2-D inversion of MT data
D. Yakovlev, K. Koryagin, D. Epishkin, N. Zorin and A. Yakovlev

P2.3.13 Impedance of capacitive electrodes and wires on the ground surface
N. Zorin, D. Epishkin, D. Yakovlev and A. Bobachev

Tuesday, 13 September, 2022

14:45 – 15:45	**Poster Session P2.3 - Theory, Modelling and Inversion**

	P2.3.14	3D imaging of electrical conductivity structures in the Eastern Cheb Basin across the Hartoušov and Bublák mofettes *B. Aleid, U. Weckmann, A. Platz, J. Pek, S. Kováčiková and R. Klanica*
	P2.3.15	Time-lapse resistivity imaging: CSEM-data 3D double-difference inversion and application to the Reykjanes geothermal field *F. Dubois and F. Bretaudeau*
	P2.3.16	Global Optimization Inversion of Horizontal Electric Dipole Time-Domain Electromagnetic Data Using Particle Swarm Optimization *C. A. Hapsoro, W. Srigutomo and E. Agustine*

15:45 – 16:00	Coffee Break

Oral Session O2.4 - Theory, Modelling and Inversion

16:00 – 16:15	O2.4.1	Hybrid GPU solution to regularized divergence-free curl-curl equations for electromagnetic inversion problems *H. Dong, K. Sun, G. Egbert, A. Kelbert and N. Meqbel*
16:15 – 16:30	O2.4.2	Speeding up the inversion of the 3D MT problem *D. Varilsüha*
16:30 – 16:45	O2.4.3	Open-source 3D inversion of semi-airborne electromagnetic data *R. Rochlitz, T. Günther and M. Becken*

16:45 – 17:00	Break
17:00 – 18:00	Discussions
18:00 – 19:30	Business Meeting

Wednesday, 14 September, 2022

Excursion Tour (Ephesus)

Thursday, 15 September, 2022

08:30 – 08:45	**Poster Introductions**

08:45 – 09:30	Review 5	Electromagnetic studies in the Eastern Mediterranean Region with Special Reference to Major Transform (Strike-Slip) Faults *S. Tank*

09:30 – 09:45	Coffee Break

09:45 – 10:30	**Poster Session P2.4 - Theory, Modelling and Inversion** **Poster viewing including break in poster hall**

P2.4.01   Singular Value Decomposition of the Phase Tensor
M. Karaş and S. B. Tank

P2.4.02   Modelling tippers in a spherical geometry
M. Kruglyakov and A. Kuvshinov

P2.4.03   Anomalous Phase in Elongated Prism Body: A Synthetic 3D MT Forward Modelling
D. Kumar, Arun Singh and M. Israil

P2.4.04   Electrical resistivity tomography image enhancement using neural network
K. Phueakim, C. Vachiratienchai and P. Amatyakul

P2.4.05   Hydrothermal system beneath Mt.Erciyes inferred from Three-dimensional Magnetotellurics, Central Anatolia, Türkiye
R.Yazıcı, M.Karaş, S. Üner and S.B. Tank

P2.4.06   Static shift correction in sedimentary basins
D. Yakovlev and A. Yakovlev

P2.4.07   Near surface resistivity structure estimated from time domain electromagnetic data recorded along a profile in HFT Zone in Mohand area, Uttarakhand, India
M. Israil, R. R. Ansari, M. Zubair, P. Yogeshwar and B. Tezkan

P2.4.08   Some fragments of my 70 years activity in EM geophysics
I. I. Rokityansky

P2.4.09   Improving geophysical model resolution with magnetotelluric and gravity joint inversion: application to the Asal Rift geothermal region, Republic of Djibouti
R. R. Rageh, P.l Tarits, S. Hautot and M. Jalludin

P2.4.10   3D inversion of drone EM data - the DroneSOM project
L. Xiao, C. Patzer and J. Kamm

Thursday, 15 September, 2022

Oral Session O2.5 - Theory, Modelling and Inversion

10:30 – 10:45	O2.5.1	Application of the total and scattered field decomposition and perfectly-matched layers to improve the accuracy in electromagnetic modelling *L. M. Buntin, T. Kalscheuer, G. Kreiss and Z. Ren*
10:45 – 11:00	O2.5.2	An efficient 3D EM modeling scheme based on a radiation boundary approach *R. Dehiya and A. Singh*
11:00 – 11:15	O2.5.3	Electromagnetic imaging using high-order FE and goal-oriented meshing *O. Castillo-Reyes, P. Rulff and E. S. Um*
11:15 – 11:30	O2.5.4	2D Electrical Resistivity Modelling on highly distorted, non-smooth, rough grids *D. Suryavanshi and R. Dehiya*
11:30 – 11:45	Coffee Break	

Oral Session O3.1 - Exploration, Monitoring and Hazards

11:45 – 12:00	O3.1.1	Drone based experimental TEM surveys over Lake Baikal and a uranium occurrence *V. Hallbauer-Zadorozhnaya, Yu. A. Davydenko, A. V. Parshin and E. Stettler*
12:00 – 12:15	O3.1.2	Regional to Deposit scale exploration in Fennoscandia based on mineral systems approach *M. Yu. Smirnov, G. Hill, J. Kamm, J. Vozar, Jirigalatu, P. Mishra, K. Muhumuza and D-REX Working Group*
12:15 – 12:30	O3.1.3	Results from the DESMEX semi-airborne EM survey at the Gosetal/Rammelsberg (Harz Mountains, Germany) *A. Thiede, M. Becken, P.O. Kotowski and the DESMEX Working Group*
12:30 – 14:00		Lunch / DC Members Meeting
14:00 – 14:45	Review 6	Electromagnetic technology for prospecting unconventional hydrocarbon resources *L. Yan*

14:45 – 15:45   Poster Session P3.1 - Exploration, Monitoring and Hazards

	P3.1.01	Using 3-D electrical conductivity model for understanding geological units of nonvolcanic geothermal reservoirs *B. Erdenechimeg, F. Samrock, A.V. Grayver, A. Kuvshinov, M.O. Saar, D. Sodnomsambuu, Ts. Shoovdor and P. Dorj*
	P3.1.02	Exploration of deep aquifer in North Jordan using TEM and MT *G. Kapinos, N. Atteyat, N. Jahed, F. Brückner, F. Lindenmaier, A. Margane, M. Toll and P. Yogeshwar*

Thursday, 15 September, 2022

14:45 – 15:45   **Poster Session P3.1 - Exploration, Monitoring and Hazards**

P3.1.03   Exploration of geothermal areas at the central part of Mexico through the application of Magnetotellurics and Transient Electromagnetics
D. Ruiz-Aguilar, E. García-Suárez, I. J. Cruz-Aquino, E. Pioquinto-Arcos, L. S. Roque-Pineda,L. Peiffer, C. Inguaggiato, L. Delgado-Argote, M. Contreras-López, and C. Arango- Galván

P3.1.04   Determination of the cap rock integrity in the Çanakkale-Tuzla hydrothermal system from inversion of magnetotelluric data by using particle swarm optimization
E. Büyük and A.Karaman

P3.1.05   Assessment of geoelectric field variability in Yenisei-Khatanga oil and gas province and space weather hazards for infrastructure
E. Yu. Sokolova, E. E. Marshalko, O. V. Kozyreva, I. S. Kupriyanov, D. V. Epishkin, G. E. Slinchuk, and D. V. Yakovlev

P3.1.06   Two-dimensional electrical resistivity model of Sabalan geothermal field using Magnetotelluric data
G. A. Fanaee Kheirabad and B. Oskooi

P3.1.07   Analysis of Geothermal Manifestation Distribution at Blawan-Ijen Geopark, East Java, Indonesia based on Magnetotelluric and Gravity Data for Determining the Recommendation of PLTP Location
A. Ibrahim, C. A. Hapsoro and S. Zulaikah

P3.1.08   Interpretation and modeling of airborne and ground magnetometry data for a geothermal reservoir in the Abgarm region of Mahallat in Iran
B. Oskooi, A. Junge, S. H. Hosseini, B. H. Dehkordi and S. M. Ghiasi

P3.1.09   New insight of the hydrothermal system associated with Tolhuaca volcano (South Chile) revealed by magnetotelluric observations
M. Pavez, D. Diaz, V. Goldberg, H. Brasse, I. Budach, G. Kapinos and E. Schill

P3.1.10   Magnetotelluric imaging of a shallow groundwater system in central Zagros, Iran
M. Montahaei

P3.1.11   Large-scale mineral system study in Finland using 3D magnetotellurics
P. K. Mishra, J. Kamm, C. Patzer, U. Autio, K. Vaittinen, K. Muhumuza, M. Yu. Smirnov, G. Hill and D-Rex Working Group

P3.1.12   Deep mineral exploration using semi-airborne electromagnetics: Investigation of agraphite deposit
W. Mörbe, P. Yogeshwar, B. Tezkan, P. Kotowski, A. Thiede, M. Becken, A. Steuer, H. Petersen, M. Schiffler, R. Stolz, R. Rochlitz and T. Günther

Thursday, 15 September, 2022

14:45 – 15:45   **Poster Session P3.1 - Exploration, Monitoring and Hazards**

P3.1.13   The value of full tensor magnetotellurics, gravity and electrical resistivity tomography for Lithium prospecting. A case study in Argentina
A. Curcio, E. Chanampa, L. Cabanillas and R.Piethe

P3.1.14   Whole-lithosphere architecture of a mineral system and signatures of the sources and pathways of ore-forming fluids
M. J. Comeau, M. Becken and A. V. Kuvshinov

P3.1.15   3-D Magnetotelluric Forward and Inversion of the Chicontepec oil basin
O. Avila, F. Corbo and C. Castro

P3.1.16   Sedimentary copper mineral systems: Large scale resistivity footprints in the Adelaide Rift Complex, South Australia
B. Kay, G. Heinson, K. Brand, S. Thiel and G. Boren

P3.1.17   Crustal geoelectrical distribution of Kalgoorlie gold camp mineral system (Western Australia)
P. Piña-Varas and M.C. Denith

15:45 – 16:00   Coffee Break

Oral Session O3.2 - Exploration, Monitoring and Hazards

16:00 – 16:15   O3.2.1   Examination of geomagnetic data as precursors of the September 5, 2018 (MW = 6.6) and August 20, 2016 (MW = 6.0) earthquakes in Japan
H. Taherinia and S. Pourbeyranvand

16:15 – 16:30   O3.2.2   Recognition of pre- and co-seismic electromagnetic signals in magnetotelluric measurements: a case study in the northern region of Algeria
A. S. Kasdi, M. Hamoudi, A. Bouzid and N. Kerbadj

16:30 – 16:45   O3.2.3   Investigation of Earthquake Swarm and Buried Geothermal Resources by Magnetotelluric, Gravity Modeling and Seismological Analyses of Upper Crust Structure of Yalova-Termal Region
E. Pekşen, D. Çaka, B. Tunç, B. Oruç, E. Budakoğlu, T. Türkmen, F. Sevim, D. Durdağ, K. Zengin, M. E. Erkan, G. Durdağ and Ş. Barış

16:45 – 17:00   Break

17:00 – 18:00   Discussions

Friday, 16 September, 2022

08:30 – 08:45	**Poster Introductions**

Oral Session O3.3 - Exploration, Monitoring and Hazards

08.45 – 09.00	O.3.3.1	Magnetotelluric investigations in the Ubaye valley, Western Alps: a connection between electrical conductivity, fluids, and earthquakes? *S. Byrdina, J-L. Got, L. Metral, P. Hering, M. Baques, L. De Barros, S. Garambois, P. Gueguen and V. Rath*
09:00 – 09:15	O3.3.2	Induction Responses from Magnetotelluric Transfer Functions in Southland, New Zealand *K. Pratscher, M. Ingham, W. Heise, T. Bertrand, D. Mac Manus, C. Rodger, M. Dalzell and T. Petersen*
09:15 – 09:30	O3.3.3	Cumbre Vieja volcanic eruption (La Palma, Canary Islands): Magnetotelluric monitoring experiment *P.Piña-Varas, J. Ledo, D. Martínez Van Dorth, P. Queralt, I. Cabrera Pérez, L. D'Auria and N. Pérez*

09:30 – 09:45	Coffee Break

09:45 – 10:30	**Poster Session P3.2 - Exploration, Monitoring and Hazards** **Poster viewing including break in poster hall**

	P3.2.01	Geophysical signature of the sedimentary/basement transition zone from seismic and CSEM. Analysis from a shallow analogue of the Rhine Graben *F. Bretaudeau, M. Darnet, J. Porté, C. Lerouge, S. Neeb, J.F. Girard, J.M. Baltassat, N. Coppo and C. Dezayes*
	P3.2.02	Combined 3D inversion of MT and CSEM-data from Malmberget northern Sweden *O. Rydman, M.Yu. Smirnov, H.V.D. Berg and N. Juhojuntti*
	P3.2.03	Experience of the solution of engineering and environmental tasks using the CSRMT method *A. Saraev, A. Shlykov and B. Tezkan*
	P3.2.04	Joint 3D inversion of nearshore and land MT and CSEM data in coastal areas of volcanic islands: application to the Bouillante geothermal field *S. Védrine, P. Tarits, F. Bretaudeau, S. Hautot and M. Darnet*
	P3.2.05	CSEM monitoring in Izu-Oshima volcano, Japan *T. Koyama and M. Uyeshima*
	P3.2.06	Magnetotelluric Images of Volcanic Zones in NE Japan Arc and Co-Seismic Deformations during the 2011 Tohoku M9 Earthquake *S. Masuda, Y. Ogawa and M. Ichiki*

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XXV ELECTROMAGNETIC INDUCTION WORKSHOP
11-17 September 2022
Grand Hotel Ontur Çeşme-Turkey

Friday, 16 September, 2022

09:45 – 10:30	**Poster Session P3.2 - Exploration, Monitoring and Hazards** **Poster viewing including break in poster hall**

P3.2.07   First experience with high power EM towards the energy transition
K. Strack, S. Davydycheva, T. Hanstein, Y. Martinez, A.Y. Paembonam, V. Pronenko, M. Smirnov, P. Soupios and X. Xu

P3.2.08   Multidimensional inversion of transient electromagnetic data for the exploration of clay pans in the Atacama Desert, Chile
B. Blanco-Arrué, P. Yogeshwar, B. Tezkan, Y. Liu, R. Peng and V. Wennrich

P3.2.09   Characterization of a landfill using magnetotellurics: The Garraf case
A. Martí, P. Queralt, A. Marcuello, J. Ledo, G. Mitjanas, P. Piña-Varas, A. Freixes, J. Solà and P. Pons

P3.2.10   Corrections for near surface effects contaminating MT data over a salt diaper, Northwest Kashan, Iran
E. Zare, M. Montahaei and H. Esmaili Oghaz

P3.2.11   Current use of Frequency-domain Electromagnetic Induction in precision agriculture: Knowledge gained from six years of experiments in Portugal
M. Farzamian, F. A. Monteiro Santos, N., A. M. Paz, F. J. Martinez Moreno, T. B. Ramos, M. C. Paz, and M. C. Gonçalves

Oral Session O3.4 - Exploration, Monitoring and Hazards

10:30 – 10:45	O3.4.1	Geothermal exploration via magnetotelluric surveys in non-volcanic geothermal fields in northern Thailand *P. Amatyakul, T. Rung-Arunwan, C. Vachiratienchai and W. Siripunvaraporn*
10:45 – 11:00	O3.4.2	CSEM/MT imaging for deep EGS geothermal project derisking in the Upper Rhine Graben (France) *M. Darnet, F. Bretaudeau, P. Wawrzyniak, J.-F. Girard, G. Marquis, V. Maurer, A. Genter*
11:00 – 11:15	O3.4.3	Integration of magnetotelluric data with ambient seismic noise and gravity models in order to characterize geothermal fault-controlled systems. The Valles Basin case of study (NE Spain) *G. Mitjanas, J. Ledo, P. Queralt, P. Piña-Varas and A. Martí*
11:15 – 11:30	O3.4.4	Hydrothermal model of Aso volcano, Central Kyushu, Japan, inferred from AMT and ACTIVE datasets *T. Minami, M. Gresse and M. Utsug*
11:30 – 11:45	**Coffee Break**	

Friday, 16 September, 2022

Oral Session O3.5 - Exploration, Monitoring and Hazards

11:45 – 12:00	O3.5.1	Using Magnetotelluric and Differential Magnetometer Data to Quantify Space Weather Risk in the UK High Voltage Power Transmission Grid *J. Hübert, C. Beggan, G. Richardson, N. Gomez Perez and A. Thomson*
12:00 – 12:15	O3.5.2	Time-lapse 3D CSEM for reservoir monitoring based on rock physics simulation *M. Ettayebi, S.Wang and M.Landrø*
12:15 – 12:30	O3.5.3	3D modeling and inversion of ground-based TEM data, a case study of seawater intrusion on the eastern coast of the Gulf of Aqaba, Jordan *J. Abu Rajab, H. El-Kaliouby, E. Al Tarazi and H. Al-Amoush*
12:30 – 14:00	Lunch	

Oral Session O4.1 - Tectonics, Magmatism, Geodynamics

14:00 – 14:15	O4.1.1	Inferring the roots of volcano-geothermal systems in the Rotorua and Okataina calderas with magnetotelluric models *E. A. Bertrand, P. Kannberg, T. G. Caldwell, W. Heise, S. Constable, B. Scott, S. Bannister, G. Kilgour, S. L. Bennie, R. Hart and N. Palmer*
14:15 – 14:30	O4.1.2	The formation of geothermal systems in the context of magma-assisted continental rifting: Magnetotelluric models from the Main Ethiopian Rift (MER) *L. Dambly, F. Samrock, A.V. Grayver, H. Eysteinsson and M.O. Saar*
14:30 – 14:45	O4.1.3	Electromagnetic Study on the tenth of Ramadan City, Eastern Desert, Egypt *M. Mekkawi, A. Ibrahim, A. Awad, A. Khalil and M. Ibrahim*

14:45 – 15:45	**Poster Session P3.3 - Exploration, Monitoring and Hazards** **Poster Session P5.1 – Marine EM**	
	P3.3.01	An electrical resistivity model of the San Pedro-Ceboruco graben: 3-D inversion studies and comparisons between standard and advanced Magnetotelluric transfer functions *C. Castro, A. Junge, H. Eysteinsson, P. Hering, L. González-Castillo and L. Ferrari*
	P3.3.02	The use of the "floating" S-plane for effective interpretation of airborne TEM data *V. Hallbauer-Zadorozhnaya and E. Stettler*
	P3.3.03	Local to Regional Scale 3D study around Gallivare, Sweden based on Integration of 3D Magnetotellurics with other Geophysical Data *Jirigalatu, M. Yu. Smirnov, T. M. Rassmussen, O. Rydman, J. Vozar, T. Bauer, J. Gao, S. Kovachikova, N. Juhojuntti, T. Hermansson, K. McGimpsey, H. Van Den Berg, G. Hill, J. Kamm and D-REX Working Group*
	P3.3.04	MTHEK Project: MagnetoTelluric Assessment of the HEKla Volcano *D. Kiyan, Á. Benediktsdóttir, G. P. Hersir, M. T. Guðmundsson, C. J. Bean, C. Hogg, Þ. Jónsson and J. E. Jónsson*

Friday, 16 September, 2022

14:45 – 15:45 **Poster Session P3.3 - Exploration, Monitoring and Hazards**
Poster Session P5.1 – Marine EM

P3.3.05   Calculating geoelectric fields using a lithospheric resistivity model of the Iberian
Peninsula
*R. Hafizi, A. Martí, P. Piña-Varas, G. Mitjanas, J. Campanyà, A. Marcuello, J. Ledo and
P. Queralt*

P3.3.06   An assessment of galvanic distortion effects contaminating MT data from
Central Iran
M. Sajedi, M. Montahaei and H. E. Oghaz

P3.3.07   Towards a new 3D conductivity model of the British Isles: Revisiting MT data
from Isle of Skye, Scotland
A. Montiel-Álvarez, J. Hübert and K. Whaler

P3.3.08   Geophysical Imaging of the Roter Kamm Crater in the Sperrgebiet National Park,
Namibia, using TEM and AMT
H. Nienhaus, P. Yogeshwar, W. Mörbe, B. Tezkan, B. Lushetile and M. Melles

P3.3.09   The site selection procedure for a high-level radioactive waste
repository in Germany: Future application of electromagnetic methods for
exploration activities
D. Rippe, K. Bairlein and Frank Meier

P3.3.10   Donbas geoelectrical structure
I. I. Rokityansky and A. V. Tereshyn

P3.3.11   Imagery down to one kilometer depth by airborne electromagnetics: New
constraints for geological and hydrogeological modeling in volcanic contexts
A. Raingeard, P.-A. Reninger, A. Peyrefitte, G. Martelet, B. Aunay, A. Malard and F. Dubois

P3.3.12   Electromagnetic Studies on The Qarun Protected Area, Fayoum-Province, Egypt
M. Mekkawi, A. Ibrahim, A. Awad, A. Khalil and M. Ibrahim

P5.1.01   Characterizing Offshore Freshened Groundwater in a Carbonate Shelf Using
Integrated Geophysical and Geochemical Analysis: A Case Study from the
Maltese Islands
*Z. Faghih, A. Haroon, M. Jegen, C. Berndt, B. A. Weymer, K. Reeck, T. Müller and M.
Schmidt*

P5.1.02   The dependence of the tsunami electromagnetic signals observed at islands on
the subsurface resistivity
R. Shibahara and T. Minami

P5.1.03   Revisit of the mantle electrical structure beneath the Tristan da Cuna hotspot
by using a 3-D inversion based on non-conforming deformed hexahedral mesh
*R. K. Singh, K., Baba, Y. Usui, A. Grayver, M. Jegen, A. Morschhauser, W. Geissler, J.
Matzka, A. Haroon and A. Kuvshinov*

Friday, 16 September, 2022

14:45 – 15:45	**Poster Session P3.3 - Exploration, Monitoring and Hazards** **Poster Session P5.1 – Marine EM**

	P5.1.04	Imaging deep resistivity in 3D in coastal areas and volcanic islands: Toward a multi-method and multi-scale approach combining land and shallow water passive and active EM *F. Bretaudeau, S. Védrine, P. Tarits, J-F d'Eu, Q. Daverdisse, N. Coppo, P. Wawrzyniak, S. Hautot, F. Dubois, E. Civallero, F. Beaubois, Y. Legendre and M. Darnet*
	P5.1.05	Links between slab mantle dehydration and forearc seismogenic zone structure in the Shumagin Gap, Alaska using magnetotelluric imaging *D. Cordell, S. Naif, R. Evans, K. Key, S. Constable, D. Shillington and A. Bécel*
	P5.1.06	Modelling 3D coast effects in marine magnetotelluric data using edge-based finite element method *J. Long and S. Wang*

15:45 – 16:00	Coffee Break

Oral Session O4.2 - Tectonics, Magmatism, Geodynamics

16:00 – 16:15	O4.2.1	Plate coupling at the northern Hikurangi margin: new results from magnetotellurics *W. Heise, S. Bennie, G. Caldwell, T. Bertrand, Y. Ogawa, S. Bannister, G. Archibald, T. Nishizawa, R. Hart, N. Palmer, K. Seki, M. Fukai, K. H. Tseng and J. McGrath*
16:15 – 16:30	O4.2.2	Investigation of Lithosphere Structure of Northwestern Anatolia with long-period magnetotelluric: Part 1. acquisition data by using remotely controlled system and comparison to previously collected broadband magnetotelluric data *İ. Demirci, N. Y. Gündoğdu, M. D. Oskay and M. E. Candansayar*
16:30 – 16:45	O4.2.3	3D lithospheric structure beneath the Marmara Sea by Magnetotellurics *T. Kaya-Eken, Y. Ogawa, Y. Usui, T. Kasaya, M. K. Tunçer, Y. Honkura, N. Oshiman, M. Matsushima and W. Siripunvaraporn*

16:45 – 17:00	Break

17:00 – 18:00	Discussions

18:00 – 19:30	Business Meeting

Saturday, 17 September, 2022

08:30 – 08:45   **Poster Introductions**

Oral Session O4.3 - Tectonics, Magmatism, Geodynamics

08:45 – 09:00   O4.3.1   3D imaging of the subsurface electrical resistivity structure in West Bohemia/Upper Palatinate covering mofettes and Quaternary volcanic structures by using Magnetotellurics
A. Platz, U. Weckmann, J. Pek, S. Kováčiková, R. Klanica, J. Mair and B. Aleid

09:00 – 09:15   O4.3.2   Investigation of Deep Structure of Sultandag Fault by Magnetotelluric, Gravity, GNSS, and Tectonic studies; First Results
Ö. Özyıldırım, İ. Demirci, Ç. Özkaymak, Ö. Bektaş, C. Başaran, İ. Tiryakioğlu, D. M. Özcan and A. Yıldız

09:15 – 09:30   O4.3.3   Integrated geophysical modeling of 2D/3D data in the Western Carpathians
J. Vozár, V. Bezák, M. Bielik and L. Ondrášová

09:30 – 09:45   Coffee Break

09:45 – 10:30   **Poster Session P4.1 - Tectonics, Magmatism, Geodynamics**
Poster viewing including break in poster hall

P4.1.01   Magnetotelluric investigation of the Denizli graben in the Western Anatolian Extensional Province
Ü. Avşar and E. Türkoğlu

P4.1.02   Investigation of Lithosphere Structure of Northwestern Anatolia with long-period magnetotelluric data: Part 2. comparison to the 2D inversion of broadband and long-period magnetotelluric data
M. E. Candansayar, İ. Demirci, N. Y. Gündoğdu and M. D. Oskay

P4.1.03   Magnetotellurics reveals a hidden caldera and its relation to regional tectonics in the Cappadocia region, central Anatolia, Turkey
Ö. Hacıoğlu, A. T. Başokur, N. Meqbel, H. I. Arslan and T. Efeçınar

P4.1.04   Estimating the melt fraction of magma reservoirs using MELTS and magnetotellurics
D. Cordell, S. Naif, J. Troch and C. Huber

P4.1.05   Resistivity Models of Southwestern Canada: New insights into lithospheric structure, magma bodies, and geothermal systems
C. Hanneson and M.J. Unsworth

P4.1.06   Constraining the size and state of magma reservoirs through a quantitative approach combining MT, lab measurements and petrological modelling
F. Samrock, A.V. Grayver, O. Bachmann, Ö. Karakas, L. Dambly and M.O. Saar

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Saturday, 17 September, 2022

09:45 – 10:30	**Poster Session P4.1 - Tectonics, Magmatism, Geodynamics** **Poster viewing including break in poster hall**

P4.1.07	3-D model of the deep structure of the Yenisei-Khatanga regional trough *D. Yakovlev, G. Slinchuk and A. Yakovlev*
P4.1.08	Compaction-driven fluid localization and stagnation can explain lower crustal low-resistivity zones *M. J. Comeau, Michael Becken and A. V. Kuvshinov*
P4.1.09	The Curnamona Cube, new data and insights *B. Kay, G. Heinson, K. Brand, S. Thiel and G. Boren*
P4.1.10	First Magnetotelluric imaging of the northern Zagros orogenic belt (Preliminary report on measured data and processing techniques) *Sh. Zhian, A. Junge and B. Oskooi*
P4.1.11	What are the compositional causes behind electrical conductivity variations in continental lithospheric mantle? Methodology and practice for quantified interpretations *S. Özaydın, K. Selway, M. Moorkamp, W. L. Griffin and C. Manassero*

Oral Session O5.1 – Marine EM
Oral Session O7.1 - Global and Planetary Studies

10:30 – 10:45	O5.1.1	3-D radio-frequency CSEM at the Weidenpesch waste site in Cologne *M. Smirnova, B. Tezkan, A. Shlykov, S. Fadavi, A. Saraev and P. Yogeshwar*
10:45 – 11:00	O5.1.2	Comparing results from a new bottom-towed CSEM system against seismic and core data *R. B. King, A. Gusick, S. Constable and J. M. Maloney*
11:00 – 11:15	O5.1.3	Multi- EM surveying and data analysis for deep-sea seafloor massive sulphide exploration *K. Schwalenberg, H. Mueller, U. Barckhausen and the INDEX Exploration Team*
11:15 – 11:30	O7.1.1	Global induction response to 11-year period and the conductivity of the lower mantle *S. Constable, C. Constable, M. Korte and M. Morzfeld*

11:30 – 11:45	Coffee Break

Saturday, 17 September, 2022

11:45 – 12:30   **Poster Session P4.2 - Tectonics, Magmatism, Geodynamics**

P4.2.01   Imaging of an intraplate volcanic system from source to surface
M. J. Comeau, M. Becken and A. V. Kuvshinov

P4.2.02   Crustal structure across Indus Tsangpo Suture zone NW Himalaya, India as revealed from Magnetotelluric study
C. K. Rao

P4.2.03   Long period magnetotelluric at the Antarctica: The role of asthenospheric mantle anisotropy in Glacial Isostatic Adjustment
L. González-Castillo, A. Madarieta-Txurruca, G. Hill, C. Castro, J. Galindo-Zaldívar and A. Junge

P4.2.04   Investigation into lithospheric mantle of Northern Tanzania utilising 3D magnetotellurics
S. Özaydın, K. Selway, S. Foley, P. Tarits and S. Hautot

P4.2.05   The Electrical Signature of the Manzaz and Atakor Intraplate Cenozoic Volcanism (Central Hoggar, South of Algeria)
Z. Boukhalfa, A. Bouzid and A. Benhallou

P4.2.06   Electrical resistivity structure beneath the southern Tohoku, Northeast Japan, inferred from a joint inversion of magnetotelluric and geomagnetic transfer functions
D. Diba, M. Uyeshima, M. Ichiki, S. Sakanaka, M. Tamura and Y. Usui

P4.2.07   Crustal Structure Beneath East Himalayan Syntaxis and the Relation to its Rapid Uplift and Exhumation
H. Dong, J. Qi, S. Jin, G. Ye and W. Wei

P4.2.08   Magnetotelluric investigations in south of Mexico to better understand the seismic hazard of the area
D. Ruiz-Aguilar, A. Husker, C. Arango-Galván, J. M. Romo-Jones, E. García-Suárez and S. Constable

P4.2.09   The Geometry of the Main Himalayan Thrust along the Satluj river valley, Northwest Himalaya, India retrieved from Magnetotelluric studies
S. Dhamodharan and R. Gautam

P4.2.10   Integrated geophysical study of the deep structure of Yenisei-Khatanga regional trough: new results and MTS contribution
E. Yu. Sokolova, E. M. Bolshakov, I. A. Biserkin, M. Ya. Finkelshtein, I. S. Kupriyanov, N. N. Pimanova and T.P. Shirokova

P4.2.11   Mapping the geometry of volcanic systems with magnetotelluric soundings: results from a land and marine magnetotelluric survey performed during the 2018-2019 Mayotte seismovolcanic crisis
M. Darnet, P. Wawrzyniak, P. Tarits, S. Hautot and J.-F. D'eu

12:30 – 14:00   Lunch

Saturday, 17 September, 2022

Oral Session O6.1 - Rock and Mineral Resistivity, and Anisotropy
Oral Session O8 - EM Induction Education and Outreach

14:00 – 14:15	O6.1.1	Multi-Data Inversion Approach for Retrieving Rock Properties from Measurements on Drill Cuttings *J. H. Börner, V. Herdegen, J.-U. Repke and K. Spitzer*
14:15 – 14:30	O6.1.2	Comparative 3D inversion of magnetotelluric phase tensors and impedances reveals electrically anisotropic base of Gawler Craton, South Australia *K. Tietze, S. Thiel, K. Brand and G. Heinson*
14:30 – 14:45	O8.1.1	Making geo-electromagnetic (magnetotelluric) data accessible via EPOS portal *M.Yu. Smirnov, J. Hübert, O. Ritter, A. Neska, T.M. Rasmussen, P. Hejda, S. Flower, A. Chambodut, J. J. Curto, J. Matzka, A. Thomson and A. Viljanen*

14:45 – 15:45 Poster Session P6.1 - Rock and Mineral Resistivity, and Anisotropy
Poster Session P7.1 - Global and Planetary Studies
Poster Session P8.1 - EM Induction Education and Outreach

	P6.1.01	Electrical monitoring of dynamic drainage and imbibition processes in rock-fluid-gas systems *M. Sonntag, J. Börner, V. Herdegen, F. Grahl and K. Spitzer*
	P6.1.02	Imaging and inversion of potential field data, a case study for exploring Iron-bearing zones in Golgohar, Iran *B. Oskooi, P. Mansourshoar and Maysam Abed*
	P6.1.03	Imaging the weathering zone in Chile with active Radio-Magnetotellurics *U. Weckmann, J. Cruces Zabala, C. Patzer, O. Ritter, and J. Araya Vargas*
	P6.1.04	Anisotropy estimation using 1D joint inversion of DC resistivity and CSRMT methods in the granite-gneiss terrains of Eastern Ghats, India *A. Singh, S. Agrahari, A. Shlykov, A. Saraev and A. Yada*
	P7.1.01	Signatures of the global ocean circulation in geomagnetic secular variation and acceleration *C.C. Finlay, J. Velímský and C. Kloss*
	P7.1.02	Limits of a-posteriori interpretation of electrical conductivity in terms of water content *O. Knopp*
	P7.1.03	Regionality of mantle conductivity inferred from geomagnetic daily variation analysis *T. Koyama, S. Fujita, I. Fujii, K. Baba and H. Shimizu*
	P7.1.04	Hunga-Tonga Hunga-Ha'apai Eruption lightning as seen by remote MT measurements in New Zealand and Japan *T. G. Caldwell, P. A. Jarvis, C. Noble and Y. Ogawa*

Saturday, 17 September, 2022

14:45 – 15:45	**Poster Session P6.1 - Rock and Mineral Resistivity, and Anisotropy** **Poster Session P7.1 - Global and Planetary Studies** **Poster Session P8.1 - EM Induction Education and Outreach**

P7.1.05 — MagVector/MFX-2 - a Planetary Laboratory on the International Space Station (ISS): Electromagnetic Simulation and Inversion of Magnetic Field Data from Planetary and Asteroid Analogs
J. Börner, S. Garbade, S. S. Keßler, D. Konigorski, V. Schmid, L. Schmitt, C. Schneider, F. Sohl and K. Spitzer

P7.1.06 — Deep geomagnetic sounding by Sq variations in Europe: A 3-D inversion based on the regional-to-local transfer functions
J. Velímský, L. Šachl and O. Knopp

P7.1.07 — 3-D inversion of tippers estimated at a continental grid of Chinese geomagnetic observatories: Preliminary results
S. Xu, A. Kuvshinov, C. Chen, M. Kruglyakov, R. Rigaud, Z. Ren and X. Hu

P7.1.08 — Investigation of the Impact of Convectively Coupled Equatorial Waves (CCEW) and Total Electron Content (TEC) on the Diurnal Cycle in Indonesia as Early Warning System of Equatorial Climate Change
M. K. Rifai, C. A. Hapsoro and E. Latifah

P7.1.09 — Variations of the induction vector, worldwide study
I. I. Rokityansky

P7.1.10 — Constraining the crustal and mantle conductivity structures beneath islands by a joint inversion of multi-source magnetic transfer functions
C. Chen, A. Kuvshinov, M. Kruglyakov, F. Munch and R. Rigaud

P8.1.01 — Multidimensional Interpretation of Controlled-Source Radio-Magnetotelluric (CSRMT) of a waste-site in Cologne, Germany
S. F. Asghari, A. Shlykov, M. Smirnova, A. Saraev, P. Yogeshwar and B. Tezkan

P8.1.02 — Delineating subsurface structures for deep aquifer study using magnetotellurics, and airborne geophysics. Case study of the Voltaian sedimentary basin, Ghana, West Africa
R.A. Mejida, P. Tarits, T.E. Armah, S. Hautot and S.M. Yidana

15:45 – 16:00	Coffee Break
16:00 – 17:00	Closing Ceremony
19:00 -	Workshop Dinner (Grand Ontur Çeşme Hotel)

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IMPORTANT DATES & SOCIAL EVENTS

Please take note of these important workshop events:

Icebreaker
- Date: Sunday, 11th September
- Time: 17:00-19:00
- Location: Palm Field (Grand Ontur Çeşme)

Business Meeting
- Tuesday, 13th September, 18:00-19:00
- Friday, 16th September, 18:00-19:00

Mid-conference Excursion
- Date: 14th September, Wednesday
- Time: 08:30-18:45

Meet at the hotel lobby
- Be there at 08:15 – buses leave on time!

Workshop Group Photo
- Date: 14th September, Wednesday
- Time: 12:30
- Location: Ephesus Ancient Theater

Conference Dinner
- Date: Saturday, 17th September
- Time: 19:00-24:00
- Location: Grand Ontur Çeşme – Palm Field

All social events are included in the registration fees of Workshop delegates and accompanying persons.
Please be ready to present your tickets for the excursion and dinner. We kindly ask you to wear you name badges at all times.

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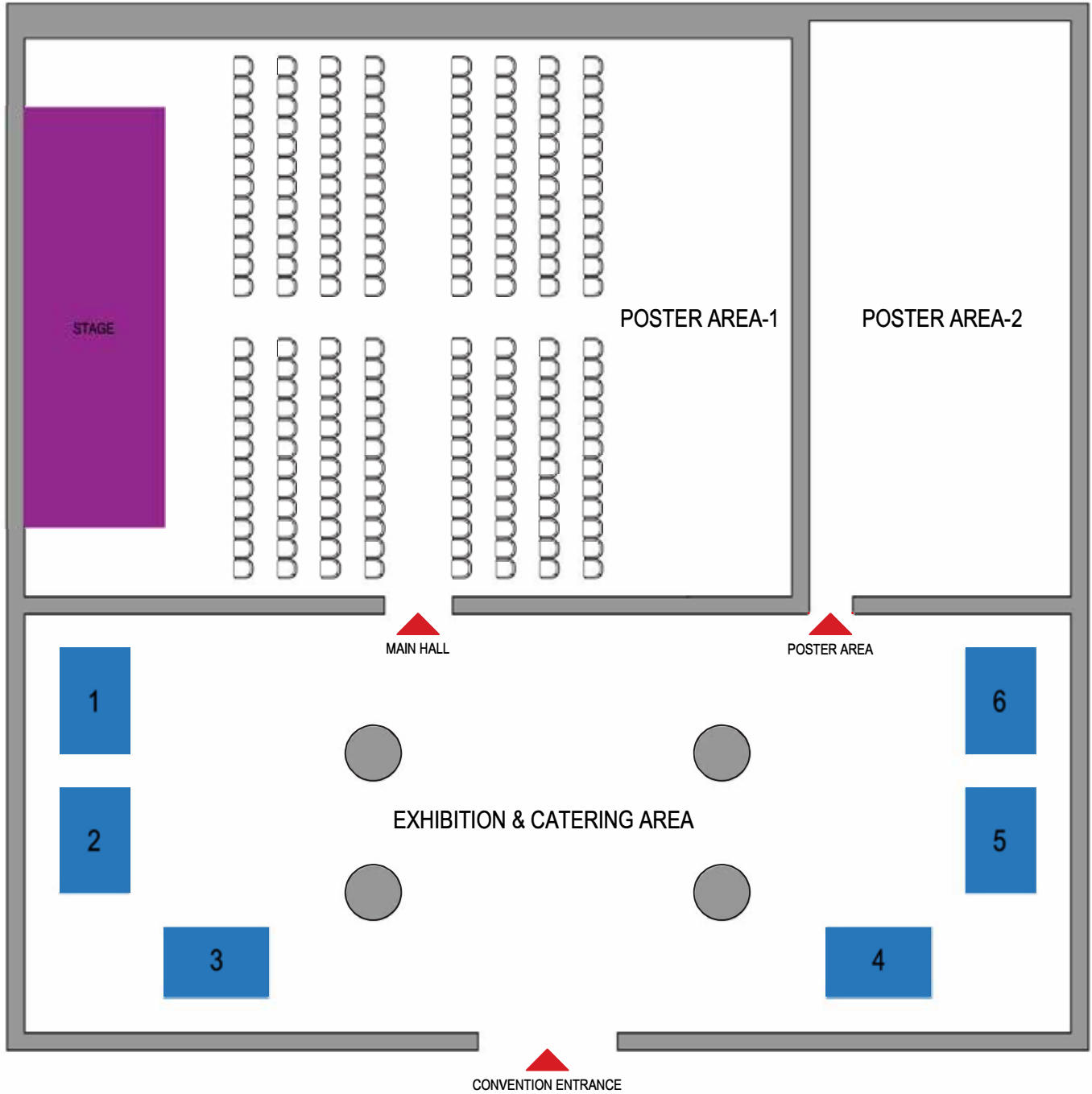
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Contact: Yann Avram (yavram@phoenix-geophysics.com)

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Contact: Dr. Nikita Zorin

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MFS-07e : a AMT / CSAMT induction coil, range from 1000s to 50 kHz
SHFT-02e/03e : a radio frequency coil triple for AMT and RMT and airborne
FGS-04e : a Bartington based fluxgate for LMT
All sensors do have an integrated chip to communicate with the data logger for automatic sensor detection and auto load of the calibration data into the logger.

Contact: Dr. Bernhard Friedrichs

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