



# **The 27<sup>th</sup> Electromagnetic Induction Workshop**

**August 2-8, 2026**

**St. John's, Newfoundland, Canada**

**PROGRAM BOOK**







# Table of Contents

|                                    |    |
|------------------------------------|----|
| Welcome .....                      | 2  |
| Land Acknowledgement .....         | 4  |
| Sponsors .....                     | 5  |
| Organizing Team .....              | 2  |
| Venue Information .....            | 4  |
| Workshop Schedule .....            | 6  |
| Social Events and Excursions ..... | 7  |
| Scientific Program .....           | 10 |
| Keynote Reviews .....              | 12 |
| Oral Sessions .....                | 15 |
| Poster Sessions .....              | 19 |
| Notes .....                        | 32 |





# W e l c o m e

Dear Participants,

On behalf of IAGA Division VI and the Program Committee, it is my pleasure to welcome you to the 27th Electromagnetic Induction Workshop (EMIW) in St. John's, Canada.

The EMIW has long been valued not only for the quality of its science but also for its open, collaborative spirit. It brings together researchers and students from around the world to exchange ideas, present new developments, start new collaborations, and, just as importantly, catch up with colleagues and friends. Whether this is your first EMIW or one of many, I hope you will enjoy an engaging week of science, discussion, and conversation.

This year, we received a strong set of abstract submissions, reflecting the breadth and vitality of electromagnetic induction research. Unfortunately, visa-related difficulties have prevented several colleagues from travelling to Canada. Their absence is deeply felt, both scientifically and personally, and we very much hope to welcome them back at future EMIWs.

Alongside the contributed presentations, one of the traditions of the EMIW is its invited review presentations. Our reviewers have invested considerable time in preparing comprehensive review talks that synthesize recent developments, place new results into a broader context, and often help shape future directions of our field.

A meeting like EMIW depends on the commitment of many people. My sincere thanks go to the Local Organizing Committee, the Program Committee, the session conveners, the invited reviewers, and the many volunteers whose enthusiasm and hard work have made this workshop possible.

I wish you a rewarding, enjoyable, and memorable EMIW 2026 in St. John's.

**Ute Weckmann**

**Chair of IAGA Division VI Committee**



# W e l c o m e

Dear EMIW 2026 Attendees,

On behalf of the Local Organizing Committee (LOC), I'd like to welcome you to St. John's, to Canada, and to this, the 27th Workshop on Electromagnetic Induction in the Earth and Planetary Bodies. We hope you all have a stimulating, successful and enjoyable time.

Many people have contributed to the organization and running of EMIW 2026, and I'd like to take this opportunity to recognize and thank them. We have received financial support from a number of sources: Phoenix Geophysics, Enthalpion Energy, IoMT, Novaminex, Deep Blue Geophysics, Zonge International, Moombarriga Geoscience, Condor Consulting, Viridien, and KMS Technologies; from IUGG, IAGA, Memorial University, KEGS Foundation, Hohmann Wannamaker Trust, Memorial University Conference & Event Services, CSEG and KEGS. We are very grateful for all these contributions.

I'd also like to thank those responsible for putting together our technical program: Ute Weckmann, Ian Ferguson, and other members of the Program Committee; and the Conveners of the individual sessions. Thank you all for your hard work, flexibility and nimbleness!

Also, thank you to Oliver Ritter for all the organization and operation of our web-pages and databases which are key to the book-keeping that underpins the organization of this Workshop; work that goes mostly unnoticed. And thank you to Juliane Hübner and Ute Weckmann for the simultaneously uplifting and agonizing deliberations of the Financial Support Committee.

Finally, I'd like to take this opportunity to thank the volunteers from the Canadian EM geophysics community and the Local Organizing Committee who have made—and are making—this Workshop happen. I'd particularly like to thank: Gerry Kilfoil, Lindsey Heagy, Darcy Cordell and Mitra Kangazian; Emily Lockyer at Memorial University's Conference & Event Services; and doubly so Ian Ferguson. Thank you so much for all your efforts, advice and support.

**Colin Farquharson,**

**Chairperson, Local Organizing Committee, EMIW 2026.**



# Land Acknowledgement

***We respectfully acknowledge that the land on which the City of St. John's is situated is the traditional, ancestral lands of diverse Indigenous groups with diverse histories and cultures including those of the Beothuk, Mi'kmaq, Innu and Inuit of this province.***



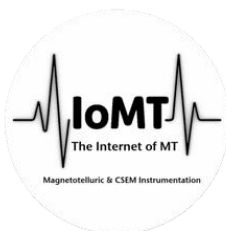


## Sponsors

### Gold



### Nickel



### Iron



### Organizations





# Organizing Team

## **Local Organizing Committee**

The 27th EM Induction Workshop in St. John's, Canada, 2026 is organized by the Canadian geophysical EM community, represented by a local organizing committee (LOC). The LOC consists of 9 researchers from universities, government, and industry across Canada. For more information on the structure of Division VI and its committees please go [here](#).

| Name              | Affiliation                                     | Position       |
|-------------------|-------------------------------------------------|----------------|
| Colin Farquharson | Memorial University of Newfoundland             | Chairperson    |
| Ian Ferguson      | University of Manitoba                          | Co-chairperson |
| Gerry Kilfoil     | Geological Survey of Newfoundland and Labrador  | Treasurer      |
| Darcy Cordell     | Athabasca University                            |                |
| Sarah Devriese    | Teck Resource Ltd.                              |                |
| Lindsey Heagy     | University of British Columbia                  |                |
| Mitra Kangazian   | Memorial University of Newfoundland             |                |
| Vicki Tschirhart  | Geological Survey of Canada, Ottawa             |                |
| Zoë Vestrum       | University of Alberta & Axiom Exploration Group |                |





## **Program Committee**

The technical program for the Workshop is put together by a Program Committee (PC) and the LOC. The members of the PC are also listed below.

| <b>Name</b>        | <b>Country</b> | <b>Position</b>        |
|--------------------|----------------|------------------------|
| Ute Weckmann       | Germany        | Chairperson            |
| Ian Ferguson       | Canada         | Co-chairperson         |
| Anna Neska         | Poland         | Publishing Coordinator |
| Abdul Azeez        | India          |                        |
| Claudia Arango     | Mexico         |                        |
| Kiyoshi Baba       | Japan          |                        |
| Zakaria Boukhalifa | Algeria        |                        |
| Jade Crosbie       | USA            |                        |
| Özlem Hacıoğlu     | Turkey         |                        |
| Lindsey Heagy      | Canada         |                        |
| Wiebke Heise       | New Zealand    |                        |
| Zhengyong Ren      | China          |                        |
| Paula Ruff         | Netherlands    |                        |
| Katarzyna Slezak   | Chile          |                        |
| Maxim Smirnov      | Sweden         |                        |
| Pierre Wawrzyniak  | France         |                        |

## **Financial Support Committee**

Applications for financial support are dealt with and decided upon by a Financial Support Committee (FSC), whose members are listed below.

| <b>Name</b>       | <b>Country</b> | <b>Position</b>                                               |
|-------------------|----------------|---------------------------------------------------------------|
| Juliane Hübert    | United Kingdom | Chairperson (DC Treasurer)                                    |
| Kiyoshi Baba      | Japan          | Co-chairperson (DC Co-chairperson, EMIW 2024 LOC Chairperson) |
| Ute Weckmann      | Germany        | DC Chairperson                                                |
| Pierre Wawrzyniak | France         | EMIW 2028 LOC Chairperson                                     |
| Colin Farquharson | Canada         | LOC Chairperson                                               |
| Gerry Kilfoil     | Canada         | LOC Treasurer                                                 |



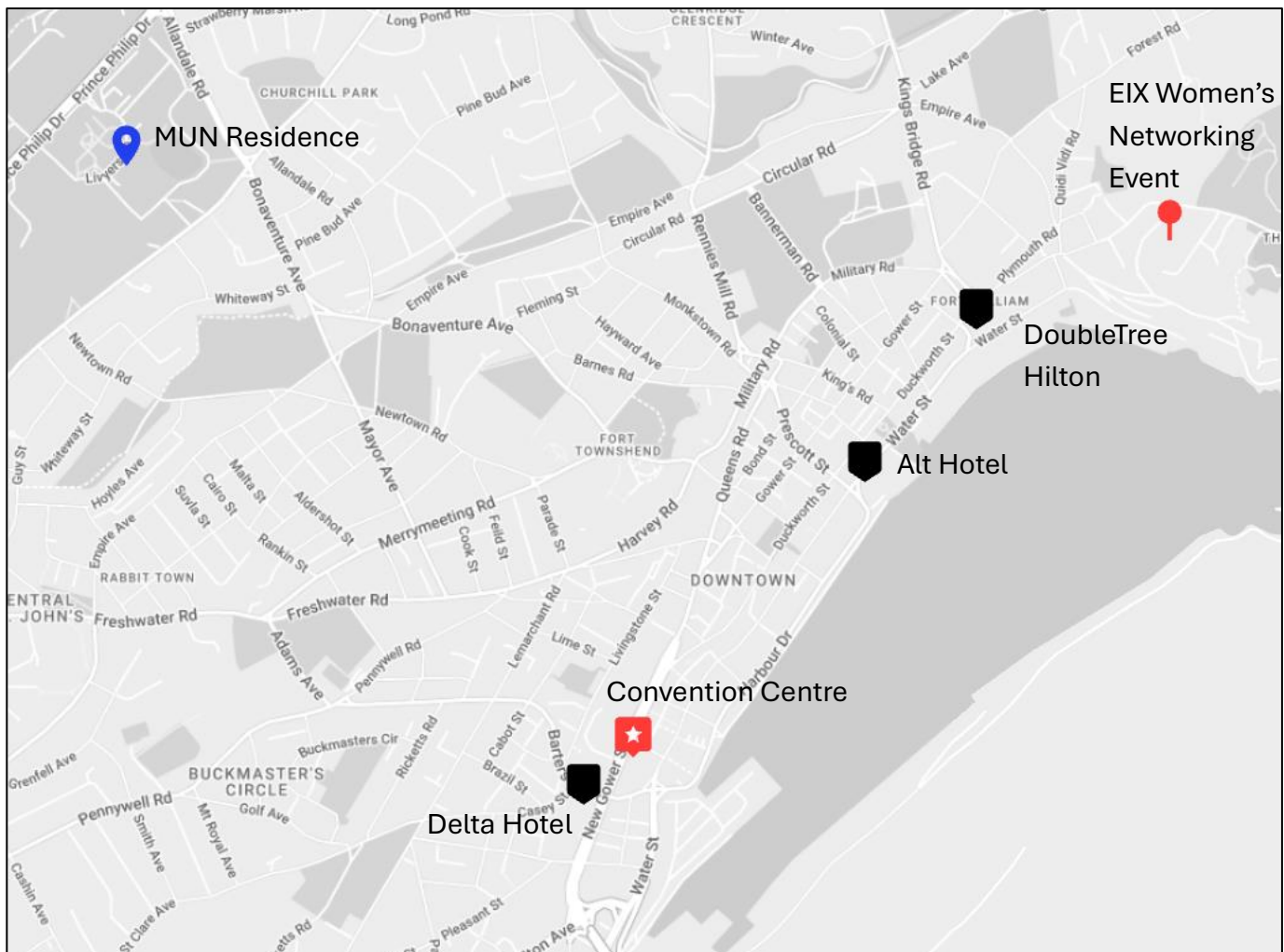
## Venue Information



The 27<sup>th</sup> Electromagnetic Induction Workshop will take place at St. John's Convention Centre. The convention centre is situated in downtown St. John's at 101 New Gower Street.

The oral sessions and poster sessions will all take place in the Bowring Ballroom. Registration is in the lobby.

Note: The convention centre does not allow outside food or drink!







# Schedule Overview

| Start | End   | Sunday<br>02-Aug | Monday<br>03-Aug | Tuesday<br>04-Aug        | Wednesday<br>05-Aug     | Thursday<br>06-Aug | Friday<br>07-Aug | Saturday<br>08-Aug | Start | End   |
|-------|-------|------------------|------------------|--------------------------|-------------------------|--------------------|------------------|--------------------|-------|-------|
| 8:00  | 8:15  |                  |                  |                          |                         |                    |                  |                    | 8:00  | 8:15  |
| 8:15  | 8:30  |                  |                  |                          |                         |                    |                  |                    | 8:15  | 8:30  |
| 8:30  | 8:45  |                  |                  |                          |                         |                    |                  |                    | 8:30  | 8:45  |
| 8:45  | 9:00  |                  |                  |                          |                         |                    |                  |                    | 8:45  | 9:00  |
| 9:00  | 9:15  |                  | Opening          |                          |                         |                    | 2012             |                    | 9:00  | 9:15  |
| 9:15  | 9:30  |                  | ceremony         | 6R01                     | 1st excurs. arr.        | 6R02               |                  | 8R01               | 9:15  | 9:30  |
| 9:30  | 9:45  |                  |                  |                          | 1st excurs. dpt.        |                    | 3R01             |                    | 9:30  | 9:45  |
| 9:45  | 10:00 |                  | 5R01             | 1001                     |                         | 6O01               |                  | 8O01               | 9:45  | 10:00 |
| 10:00 | 10:15 |                  |                  | 1002                     | Last excurs. arr.       | 6O02               | 3O01             | 8O02               | 10:00 | 10:15 |
| 10:15 | 10:30 |                  | 5O01             | 1003                     | Last excurs. dpt.       | 7O01               | 3O02             | 8O03               | 10:15 | 10:30 |
| 10:30 | 10:45 |                  | Coffee break     | Coffee break             |                         | Coffee break       | Coffee break     | Coffee break       | 10:30 | 10:45 |
| 10:45 | 11:00 |                  |                  |                          |                         |                    |                  |                    | 10:45 | 11:00 |
| 11:00 | 11:15 |                  | Poster 1         | Poster 3                 |                         | Poster 5           | Poster 7         | 8O04               | 11:00 | 11:15 |
| 11:15 | 11:30 |                  | 5P01-5P20        | 1P01-1P20                |                         | 6P01-6P8           | 3P01-3P37        | 9O01               | 11:15 | 11:30 |
| 11:30 | 11:45 |                  |                  |                          |                         | 7P01-7P19          |                  | 10O01              | 11:30 | 11:45 |
| 11:45 | 12:00 |                  |                  |                          |                         |                    |                  | Discussion         | 11:45 | 12:00 |
| 12:00 | 12:15 |                  | 5O02             | 1O04                     |                         | 7O02               | 3O03             | session 5          | 12:00 | 12:15 |
| 12:15 | 12:30 |                  | 5O03             | 1O05                     |                         | 7O03               | 3O04             |                    | 12:15 | 12:30 |
| 12:30 | 12:45 |                  | 5O08             | 2O01                     |                         | 7O04               | 3O05             | Break              | 12:30 | 12:45 |
| 12:45 | 13:00 |                  |                  | Group photo              |                         |                    |                  | Closing            | 12:45 | 13:00 |
| 13:00 | 13:15 |                  | Lunch break      | Lunch break              | Excursion and free time | Lunch break        | Lunch break      | ceremony           | 13:00 | 13:15 |
| 13:15 | 13:30 |                  |                  |                          |                         |                    |                  |                    | 13:15 | 13:30 |
| 13:30 | 13:45 |                  | Division com.    | Division com.            |                         | Division com.      |                  |                    | 13:30 | 13:45 |
| 13:45 | 14:00 |                  | mtg              | mtg                      |                         | mtg                |                  |                    | 13:45 | 14:00 |
| 14:00 | 14:15 | Registration     |                  |                          |                         |                    |                  |                    | 14:00 | 14:15 |
| 14:15 | 14:30 |                  | 5O04             | 2O02                     |                         | 2O08               | 3O06             |                    | 14:15 | 14:30 |
| 14:30 | 14:45 |                  | 5O05             | 2O03                     |                         | 2O09               | 4O01             |                    | 14:30 | 14:45 |
| 14:45 | 15:00 |                  | 5O06             | 2O04                     |                         | 2O10               | 4O02             |                    | 14:45 | 15:00 |
| 15:00 | 15:15 |                  | 5O07             | 2O05                     |                         | 2O11               | 4O03             |                    | 15:00 | 15:15 |
| 15:15 | 15:30 |                  | Coffee break     | Coffee break             |                         | Coffee break       | Coffee break     |                    | 15:15 | 15:30 |
| 15:30 | 15:45 |                  |                  |                          |                         |                    |                  |                    | 15:30 | 15:45 |
| 15:45 | 16:00 |                  | Poster 2         | 2O06                     |                         | Poster 6           | 4O04             |                    | 15:45 | 16:00 |
| 16:00 | 16:15 |                  | 5P21-5P33        | 2O07                     |                         | 2P29-2P56          | 4O05             |                    | 16:00 | 16:15 |
| 16:15 | 16:30 |                  | 11P01-11P04      | Poster 4                 |                         | 10P01-10P09        | Poster 8         |                    | 16:15 | 16:30 |
| 16:30 | 16:45 |                  | 9P01-9P05        | 2P01-2P28                |                         |                    | 4P01-4P24        |                    | 16:30 | 16:45 |
| 16:45 | 17:00 |                  | Discussion       |                          |                         | Discussion         | 8P01-8P27        |                    | 16:45 | 17:00 |
| 17:00 | 17:15 | Reg/Icebreaker   | session 1        |                          |                         | session 3          |                  |                    | 17:00 | 17:15 |
| 17:15 | 17:30 |                  |                  | Discussion               |                         |                    | Discussion       |                    | 17:15 | 17:30 |
| 17:30 | 17:45 |                  | Break            | session 2                |                         | Break              | session 4        |                    | 17:30 | 17:45 |
| 17:45 | 18:00 | Ice-breaker      | Division VI      |                          |                         | Division VI        |                  |                    | 17:45 | 18:00 |
| 18:00 | 18:15 |                  | Business mtg 1   |                          |                         | Business mtg 2     |                  |                    | 18:00 | 18:15 |
| 18:15 | 18:30 |                  |                  |                          |                         |                    |                  |                    | 18:15 | 18:30 |
| 18:30 | 18:45 |                  |                  |                          |                         |                    |                  |                    | 18:30 | 18:45 |
| 18:45 | 19:00 |                  |                  |                          | Informal activity       |                    |                  |                    | 18:45 | 19:00 |
| 19:00 | 19:15 |                  |                  |                          |                         |                    |                  |                    | 19:00 | 19:15 |
| 19:15 | 19:30 |                  |                  |                          |                         |                    |                  | Closing            | 19:15 | 19:30 |
| 19:30 | 19:45 |                  |                  | Women's networking event |                         |                    |                  | banquet            | 19:30 | 19:45 |
| 19:45 | 20:00 |                  |                  |                          |                         |                    |                  |                    | 19:45 | 20:00 |
| 20:00 | 20:15 |                  |                  |                          |                         |                    |                  |                    | 20:00 | 20:15 |
| 20:15 | 20:30 |                  |                  |                          |                         |                    |                  |                    | 20:15 | 20:30 |
| 20:30 | 20:45 |                  |                  |                          |                         |                    |                  |                    | 20:30 | 20:45 |
| 20:45 | 21:00 |                  |                  |                          |                         |                    |                  |                    | 20:45 | 21:00 |
| 21:00 | 21:15 |                  |                  |                          |                         |                    |                  |                    | 21:00 | 21:15 |





## S o c i a l   E v e n t s

### Icebreaker

Icebreaker after registration will take place on Sunday, August 2nd from 17:00 to 18:30 in the St John's Convention Centre lobby.

### Women's Networking Event (WNE)

The Women's Networking Event will take place on Tuesday, August 4<sup>th</sup> from 19:00 to 21:30 at the Emera Innovation Exchange (EIX) Conference Centre at [100 Signal Hill Road](#). A bus service will be provided from the main conference venue to EIX.

Please contact Mitra Kangazian at [mkangazianka@mun.ca](mailto:mkangazianka@mun.ca) for more information about the WNE.

### Banquet

The end-of-conference banquet will take place on Saturday, August 8<sup>th</sup> from 18:00 to 21:30 in the Bannerman Ballroom of the St John's Convention Centre. This will include a buffet-style dinner.

### Excursions

On Wednesday, August 5<sup>th</sup>, there will be a selection of six excursions to explore the areas around St John's, Newfoundland, experience nature, and learn about the history of the area. Participants have been grouped into one of the six excursions based on preference and group size constraints. Participants should wear comfortable clothing suitable for walking and bring appropriate clothing in the event of wind, rain, or cool weather.

All excursions will depart from the lobby of the St. John's Convention Centre. Excursion departures will be staggered with the first departure at 9:30 am. More info about departure times will be provided during the conference. Excursions will return to the meeting place at different times depending on whether excursion is full day or half day.

Below is a summary of each excursion.



### Excursion #1: Historic St. John's and Cape Spear Tour



Discover the highlights of St. John's on this guided bus tour featuring breathtaking coastal views and rich local history. Visit iconic sites like Cape Spear Lighthouse National Historic Site (the easternmost point of North America), Signal Hill and Cabot Tower (where Marconi received the first trans-Atlantic radio transmissions), while hearing colourful stories and legends from a local guide. From charming Quidi Vidi Village to the famous Jellybean Row houses, this tour offers the perfect introduction to the culture, scenery, and character of Newfoundland.

### Excursion #2: Bird Island Boat Tour



Take a scenic drive along the Southern Shore to the charming outport of Bay Bulls, then set out on an unforgettable boat excursion with O'Brien's Boat Tours. Cruise through the spectacular Witless Bay Ecological Reserve (Gull, Green, Great, and Pee Pee Islands; more information [here](#)), home to millions of seabirds including Atlantic Puffins, Murres, and Kittiwakes, while keeping watch for whales—and even icebergs in late spring. This 4-hour adventure is a must-do Newfoundland experience combining coastal scenery, incredible wildlife, and authentic outport charm.

### Excursion #3: Downtown Walking Tour



Step into the history and culture of St. John's on this 3–4 hour guided walking tour through the heart of the city. Explore iconic landmarks like Government House, Colonial Building, and the stunning Basilica Cathedral of St. John the Baptist, before wandering through colourful Jellybean Row and the lively streets of George Street and Water Street. Finish along the scenic harbourfront with beautiful coastal views on this perfect introduction to the city's charm and character.



#### Excursion #4: Around the Bay



Experience the charm and stories of Newfoundland on this full-day bus tour exploring the picturesque outport communities along Conception Bay. Discover tales of pirates, WWII submarine encounters, early transatlantic aviation, Arctic exploration, and the region's unique Irish heritage as you travel through stunning coastal scenery. With memorable photo stops, local food, and colourful characters along the way, this tour offers an authentic taste of outport Newfoundland that every visitor will love.

#### Excursion #5: Around the Bay Brew Bus Tour



Explore Newfoundland's thriving craft beverage scene on this full-day bus tour through the coastal communities of Conception Bay. Visit two local breweries and Newfoundland Distillery Company, enjoying tastings, great food, and lively stories that showcase how craft beer and spirits have become part of the province's culture. With beautiful scenery, local flavours, and plenty of laughs along the way, this tour is a perfect blend of Newfoundland hospitality and coastal charm.

#### Excursion #6: Secrets in Stone: Exploring Newfoundland's Fossil Coast



Join a fascinating bus tour to explore world-renowned fossil sites at Upper Island Cove and Manuels River Fossil Site, where 500-million-year-old discoveries have been studied for decades. Led by fossil expert Rod Taylor, this guided tour brings Newfoundland's ancient past to life with engaging stories and hands-on interpretation. Transportation, a guided fossil experience, and a picnic lunch are included—making this a memorable adventure for anyone curious about the deep history of our coastline.



# Scientific Program

## **Session 1: EM Instrumentation, Data Acquisition, Noise and Processing**

*Conveners: Jade Crosbie and Yann Avram*

## **Session 2: EM Theory, Modelling, Inversion and AI**

*Conveners: Paula Ruff and Hao Dong*

## **Session 3: Tectonic EM Studies of the Crust and Lithosphere**

*Conveners: Martyn Unsworth and Martin Musila*

## **Session 4: EM Imaging of Magmatic and Geothermal Systems**

*Conveners: Wiebke Heise and Kristin Pratscher*

## **Session 5: EM Methods for Mineral Exploration and Resource Studies**

*Conveners: Lindsey Heagy and Lizhen Cheng*



---

## **Session 6: EM for High-Latitude , Environmental, Humanitarian and Archaeological Studies**

*Conveners: Claudia Arango Galván and Lorenzo Schmitt*

---

## **Session 7: Monitoring (GICs, CCS, Environmental, Humanitarian, Tectonic and Geomorphological Hazards)**

*Conveners: Cesar Castro and Pierre Wawrzyniak*

---

## **Session 8: Marine EM Studies**

*Conveners: Samer Naif and Tetsuo Matsuno*

---

## **Session 9: Electrical Rock Properties: Computer, Laboratory and Field Experiments, including Anisotropy**

*Conveners: Christian Dupuis and Darcy Cordell*

---

## **Session 10: Global, Planetary and Source Field Studies**

*Conveners: Anne Neska and Jakub Velimski*

---

## **Session 11: EM Education, History and Outreach**

*Conveners: Ute Weckmann and Ian Ferguson*

---





## Keynote Review Talks

### **Dr. Chloe Gustafson**

**United States Geological Survey**

**Keynote Subject: EM Studies in Permafrost and Arctic Regions**

Chloe Gustafson earned a PhD from Lamont-Doherty Earth Observatory at Columbia University in 2020 and is now a geophysicist with the United States Geological Survey (USGS) in Denver, Colorado. During and following her graduate work, Chloe's research focused on using electromagnetic methods to understand submarine and subglacial hydrogeologic systems. Chloe has spent two field seasons in Antarctica, been involved in the design and coordination of a multi-year international Antarctic geophysical data collection campaign, and delivered training on electromagnetic data collection in polar environments. Now at the USGS, Chloe develops and applies airborne electromagnetic, magnetic, and radiometric methods to map the geologic framework of critical-mineral systems throughout the U.S. as part of the Earth Mapping Resources Initiative.



### **Dr. Juliane Hübert**

**British Geological Survey**

**Keynote Subject: EM Studies in Continental Rift Settings**

Juliane Hübert is a senior research scientist at the British Geological Survey. Her journey began at the University of Potsdam and GFZ Helmholtz Centre for Geosciences in Germany, where memorable MT field campaigns sparked her interest in geophysics. After earning a PhD at Uppsala University, Sweden, on 2D and 3D MT inversion for mineral exploration, she held postdoctoral positions at University of Alberta, Canada, applying ground and airborne MT to porphyry mineral deposits and at University of Edinburgh, Scotland, investigating the plumbing system of volcanic centers in the Main Ethiopian Rift. Today, she focuses on understanding space weather ground effects and unlocking deep geothermal reservoirs.





## Dr. Xiangyun Hu

[Insert Affiliation Here]

### Keynote Subject: EM Studies in Mineral Exploration

Xiangyun Hu received the Ph.D. degree from China University of Geosciences, Wuhan, China in 2000. His research interests include the fundamental theory, new algorithms, instrumentation, and applied innovations in electromagnetic methods for multi-scale Earth structural imaging. He has coauthored more than 350 articles in national and international journals. In 2025, Prof. Hu was a recipient of the Li Siguang Geological Science Prize, and the first prize of the Science and Technology Innovation Award of the Chinese Geophysical Society. He is the chair of the Hydrogeophysics Committee of the Chinese Geophysical Society, and an Associate Editor of Geological Society of America Bulletin and Geophysics.



## Dr. Seogi Kang

University of Manitoba, Canada

### Keynote Subject: EM Contributions to Hydrogeophysics

Seogi Kang completed his PhD in Geophysics at the University of British Columbia (Canada) in 2018, where his thesis focused on computational electromagnetics and its applications to mining problems. He later worked as a Research Scientist at Stanford University, advancing electromagnetic geophysics for groundwater science and sustainable water management in California (USA). Currently, he is an Assistant Professor at the University of Manitoba, where he leads the Electromagnetic Geophysics Lab. His research focuses on advancing electromagnetic methods for groundwater and mineral exploration applications. He is also a co-creator of the open-source geophysical software project SimPEG.





## **Dr. Katrin Schwalenberg**

**Federal Institute for Geosciences and Natural Resources, Germany**

**Keynote Subject: EM Studies in Marine Rift Settings**



Katrin Schwalenberg earned her PhD at the Free University of Berlin in collaboration with GFZ Potsdam, where she studied tectonic processes in the South American subduction zone using magnetotellurics and 2D inversion. She then spent four years as a postdoctoral researcher at the University of Toronto, contributing to the development of marine controlled-source electromagnetics for submarine gas hydrate exploration. Since returning to Germany in 2005, she has established and led the Marine Electromagnetics group at BGR, developing and applying innovative methods and instrumentation to investigate submarine energy, groundwater, and mineral resources at multiple scales. While she enjoys working at sea, she has recently taken on the leadership of the Airborne Geophysics group at BGR and is looking forward to new tasks and collaborations.

## **Dr. Hendrik Müller**

**Geological Survey of Germany**

**Keynote Subject: EM Studies in Marine Rift Settings**



Hendrik Müller is a senior scientist for marine electromagnetics and magnetics at the Geological Survey of Germany (BGR). He received his PhD at MARUM, University of Bremen, on electromagnetic characterization of marine near-surface sediments. From 2009 to 2017, he held an academic assistant position in marine geophysics at the University of Bremen, with responsibilities in research, teaching, and supervision. In 2017, he was a guest scientist at Woods Hole Oceanographic Institution (WHOI) and has been involved in the MARELEC (MARine ELECTromagnetic) conference committee since 2013. His work focuses on near-surface electromagnetic methods for high-resolution subsurface imaging, particularly applied to mid-ocean ridge hydrothermal mineral systems and seafloor massive sulfide deposits. Additional research interests include coastal EM studies of submarine groundwater discharge and gas seepage, EM and magnetic modeling and inversion, sensor development, and integrated marine geophysical approaches.



# Oral Sessions

Talk IDs use the format SS[O/R]NN (Session, Oral/Review, Number).

## Sunday, August 2

|               |                |
|---------------|----------------|
| 13:15 – 17:00 | Registration   |
| 17:00 – 17:30 | Reg/Icebreaker |
| 17:30 – 18:30 | Ice-breaker    |

## Monday, August 3

|               |                                                        |                                                                                                                                                                                                            |                                                                                                                                         |
|---------------|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 09:00 – 09:30 | Opening ceremony                                       |                                                                                                                                                                                                            |                                                                                                                                         |
| 09:30 – 10:15 | <b>05R01 Review</b>                                    | Electromagnetic methods in mineral exploration: recent advances from 2013 to 2025                                                                                                                          | Xiangyun Hu, Ronghua Peng, Jianhui Li, Hongzhu Cai, Bo Han, Lichao Liu and Shan Xu                                                      |
| 10:15 – 10:30 | 05O01                                                  | Imaging a kamafugite volcanic plumbing system in southeastern Brazil using 3D audiomagnetotelluric inversion and integrated geophysical data                                                               | Franco, L. M., La Terra, E. F., Tupinambá, M. A., Panetto, L. P., Ulugergerli, E. U.                                                    |
| 10:30 – 11:00 | Coffee break                                           |                                                                                                                                                                                                            |                                                                                                                                         |
| 11:00 – 12:00 | Poster Session 1 (5P01-5P20)                           |                                                                                                                                                                                                            |                                                                                                                                         |
| 12:00 – 12:15 | 05O02                                                  | Exploration of Deep Freshwater Aquifers in Southern Africa Using UAV-Based SAEM                                                                                                                            | Mörbe, W., Rochlitz, R., Hamutoko, J., Ndong, M., Mazibuko, C., Banda, K., Gürsoy, S., Bäuml, R., Wilhelm, A., Adams, D.-J., Brauch, K. |
| 12:15 – 12:30 | 05O03                                                  | A current inversion approach for correcting the effects of metal-bearing infrastructure in semi-airborne EM data                                                                                           | Treppke, H., Becken, M., Rochlitz, R.                                                                                                   |
| 12:30 – 12:45 | 05O04                                                  | Toward reliable and high-resolution resistivity imaging with Controlled Source EM in land - densifying arrays as a key for success - 10 years of progress for geothermal and mineral resources exploration | Brethaud F., Védreine S., Patzer C., Kim B., Dubois F., Autio U., Kamm J., Darnet M.                                                    |
| 13:00 – 14:15 | Lunch break                                            |                                                                                                                                                                                                            |                                                                                                                                         |
| 13:00 – 14:15 | Division Committee Meeting                             |                                                                                                                                                                                                            |                                                                                                                                         |
| 14:15 – 14:30 | 05O05                                                  | Investigating Acid Mine Drainage in Complex Topography Areas via Semi-airborne and Surface Geophysical Surveys: A Case Study in Fujian, China                                                              | Zhang, N., Sun, H., Du, S., Liu, S., Huang, Z., Liu, R., Lu, X., Fan, Y.                                                                |
| 14:30 – 14:45 | 05O06                                                  | A blueprint for greenfield hydrogen and helium exploration using MT                                                                                                                                        | Daruso, R., Heinson, G., Brecker, G., Hanna, M., Dawson, D., Margiono, R., Gubina, A., Boren, G., Holford, S., King, R.                 |
| 14:45 – 15:00 | 05O07                                                  | Full-Space Electromagnetic Characterization of Sub-Seismic Anomalies in an Active Potash Mine                                                                                                              | LeBlanc, T. J., Butler, S. L.,                                                                                                          |
| 15:00 – 15:15 | 05O08                                                  | Underground Time-Domain Electromagnetic measurements for deep mineral deposits exploration: case of 3 km-deep targets at LaRonde Mine.                                                                     | Mamadou Cherif Diallo, Lizhen Cheng                                                                                                     |
| 15:15 – 15:45 | Coffee break                                           |                                                                                                                                                                                                            |                                                                                                                                         |
| 15:45 – 16:45 | Poster Session 2 (5P21-5P33 ; 11P01-11P04 ; 9P01-9P05) |                                                                                                                                                                                                            |                                                                                                                                         |
| 16:45 – 17:30 | Discussion session 1                                   |                                                                                                                                                                                                            |                                                                                                                                         |
| 17:30 – 17:45 | Break                                                  |                                                                                                                                                                                                            |                                                                                                                                         |
| 17:45 – 18:45 | Division VI Business meeting 1                         |                                                                                                                                                                                                            |                                                                                                                                         |



## Tuesday, August 4

|               |                                     |                                                                                                                                                       |                                                                                                                                                                                                                                        |
|---------------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 09:00 – 09:45 | <b>06R01<br/>Review</b>             | Electromagnetic Geophysics for Hydrogeologic Applications                                                                                             | Kang S., Kang H., and Hwang J.                                                                                                                                                                                                         |
| 09:45 – 10:00 | 01O01                               | Processing of MT Data in Electromagnetically Noisy Environments                                                                                       | G.D.Egbert and M. Yu. Smirnov                                                                                                                                                                                                          |
| 10:00 – 10:15 | 01O02                               | Instrumental effects on electric field measurements                                                                                                   | Kalscheuer, T., Zimmermann, U., Sparr, H., Palm Ekspeng, A., Lindblad, A.                                                                                                                                                              |
| 10:15 – 10:30 | 01O03                               | Proposing a common IAGA data format and metadata definition for magnetotelluric time series                                                           | Peacock, J. R., Kappler, K., Hueber, J., and IAGA Division VI Working Group on MT Data Interoperability                                                                                                                                |
| 10:30 – 11:00 | <b>Coffee break</b>                 |                                                                                                                                                       |                                                                                                                                                                                                                                        |
| 11:00 – 12:00 | <b>Poster Session 3 (1P01-1P20)</b> |                                                                                                                                                       |                                                                                                                                                                                                                                        |
| 12:00 – 12:15 | 01O04                               | The impact of high contact resistances on MT data and how to address them                                                                             | Ritter, O., Toshniyozov, D., Weckmann, U., Grayver, A., Rebolé-Canals, S., Fromm, T.                                                                                                                                                   |
| 12:15 – 12:30 | 01O05                               | Characterizing and mitigating near-field sources and other noise in a wideband magnetotelluric survey on the U.S. East Coast                          | Crosbie, J., Peterson, D., Bedrosian, P., Getty, K., Koenig, P., Williams, C., Loya, M., Wirth, H., Wilson, G.                                                                                                                         |
| 12:30 – 12:45 | 02O01                               | MT3DINV4 Report                                                                                                                                       | Jones, A.G., Kangazian, M., Modellers, MT                                                                                                                                                                                              |
| 12:45 – 13:00 | <b>Group photo</b>                  |                                                                                                                                                       |                                                                                                                                                                                                                                        |
| 13:00 – 14:15 | <b>Lunch break</b>                  |                                                                                                                                                       |                                                                                                                                                                                                                                        |
| 13:00 – 14:15 | <b>Division Committee Meeting</b>   |                                                                                                                                                       |                                                                                                                                                                                                                                        |
| 14:15 – 14:30 | 02O02                               | Applications of KoBold's GPU-accelerated Bayesian inversion pipeline for EM data: from structural mapping to magmatic sulfide targeting               | Reid, B., Edman, J., Vinokurov, J.                                                                                                                                                                                                     |
| 14:30 – 14:45 | 02O03                               | Infrastructure-aware semi-airborne electromagnetic inversion for fault zone imaging                                                                   | Maryam Bayat, Thomas Günther, Raphael Rochlitz, Markus Schiffler                                                                                                                                                                       |
| 14:45 – 15:00 | 02O04                               | Upscaling magnetic permeability of steel-cased wells                                                                                                  | Heagy, L.J., Oldenburg, D.W.                                                                                                                                                                                                           |
| 15:00 – 15:15 | 02O05                               | 4D Magnetotelluric Inversion for Volcanic Monitoring: Evaluation of Time-Lapse Strategies and Constraints on Magma Evolution Beneath Mount St. Helens | Song, H., Moorkamp, M., Hill, G., Roots, E., Chen, C., Maetschke, K., Gahr, S., Karcioğlu, G., Castro, C., Avram, Y., Torres, J., Schultz, A., Peacock, J., Bedrosian, P., Cimarelli, C., Cariichi, L., Ogawa, Y., Hogg, C., Kiyan, D. |
| 15:15 – 15:45 | <b>Coffee break</b>                 |                                                                                                                                                       |                                                                                                                                                                                                                                        |
| 15:45 – 16:00 | 02O06                               | custEMx - the successor of custEM for 3D EM modelling and inversion toolbox                                                                           | Skibbe, N., Rochlitz, R.                                                                                                                                                                                                               |
| 16:00 – 16:15 | 02O07                               | MTGeophysics.jl: A software repository for magnetotelluric research and applications                                                                  | Mishra, P. K.                                                                                                                                                                                                                          |
| 16:15 – 17:15 | <b>Poster Session 4 (2P01-2P28)</b> |                                                                                                                                                       |                                                                                                                                                                                                                                        |
| 17:15 – 18:00 | <b>Discussion session 2</b>         |                                                                                                                                                       |                                                                                                                                                                                                                                        |
| 18:30 – 20:45 | <b>Women's networking event</b>     |                                                                                                                                                       |                                                                                                                                                                                                                                        |





## Wednesday, August 5

|                      |                                          |
|----------------------|------------------------------------------|
| <b>09:15 – 17:45</b> | <b>Excursion and free time</b>           |
| <b>09:15 – 09:30</b> | First Excursion Recommended Arrival Time |
| <b>09:30 – 09:45</b> | First Excursion Departs                  |
| <b>10:00 – 10:15</b> | Last Excursion Recommended Arrival Time  |
| <b>10:15 – 10:30</b> | Last Excursion Departs                   |
| <b>18:30 – 20:45</b> | <b>Informal activity</b>                 |

## Thursday, August 6

|               |                                                   |                                                                                                                                              |                                                                                                                                                                              |
|---------------|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 09:00 – 09:45 | <b>06R02 Review</b>                               | A review of EM studies in Arctic and permafrost regions, with updates on recent Antarctic studies                                            | Gustafson, C. D.                                                                                                                                                             |
| 09:45 – 10:00 | 06O01                                             | Frequency-Domain Airborne Electromagnetic Imaging of Discontinuous Permafrost in the Central Mackenzie Valley, Northwest Territories, Canada | Moshtaghian, K., Chiasson, A., Alvarez, A., Antonio Couto Jr, M., Heagy, L.J., Lorry, M., Unsworth, M., Young, J., Kokelj, S.V., Rudy, A.C.A., Smith, S.L., and Froese, D.G. |
| 10:00 – 10:15 | 06O02                                             | On the effectiveness of the 3D inversion of phase tensors to image the subsurface structure of a monogenetic volcanic field                  | Ruiz Aguilar, D., Alvarado-Izarraras, L.G., Ochoa-Tinajero, L.E., Mastache-Román, E.A.                                                                                       |
| 10:15 – 10:30 | 07O01                                             | Seismic-Informed CSEM Inversion for Uncertainty-Aware CO2 Saturation Monitoring                                                              | Entezar-Saadat, V., Malcolm, A., Farquharson, C.                                                                                                                             |
| 10:30 – 11:00 | <b>Coffee break</b>                               |                                                                                                                                              |                                                                                                                                                                              |
| 11:00 – 12:00 | <b>Poster Session 5 (6P01-6P8 ; 7P01-7P19)</b>    |                                                                                                                                              |                                                                                                                                                                              |
| 12:00 – 12:15 | 07O02                                             | Monitoring Iceland's Strokkur Geyser: Spatio-Temporal Sensitivity of Time-Domain Electromagnetics                                            | Spitzer, K., Scheunert, M., Börner, J. and Hort, M.                                                                                                                          |
| 12:15 – 12:30 | 07O03                                             | Magnetotelluric Monitoring at Kilauea Volcano, Hawaii                                                                                        | Bedrosian, P.A., Peterson, D.E., Castro, C., Wallin, E., Wilson, G.S., Moorkamp, M., Hill, G.J.                                                                              |
| 12:30 – 12:45 | 07O04                                             | Geoelectric fields in southeastern British Columbia during the large geomagnetic storm of September 2017                                     | Hanneson, C., Cordell, D.                                                                                                                                                    |
| 13:00 – 14:15 | <b>Lunch break</b>                                |                                                                                                                                              |                                                                                                                                                                              |
| 13:00 – 14:15 | <b>Division Committee Meeting</b>                 |                                                                                                                                              |                                                                                                                                                                              |
| 14:15 – 14:30 | 02O08                                             | Multiple solutions to electromagnetic inverse problems via tracking flights across the model landscape                                       | Everett, M.E.                                                                                                                                                                |
| 14:30 – 14:45 | 02O09                                             | An investigation of Higher-order polynomials for accuracy of 3D MT calculations on unstructured meshes                                       | Varilsuha, D., Ansari, S.M.                                                                                                                                                  |
| 14:45 – 15:00 | 02O10                                             | A quantitative framework for mapping spatial variations in 3D MT model resolution                                                            | Gonzalez-Garcia, J., Unsworth, M.                                                                                                                                            |
| 15:00 – 15:15 | 02O11                                             | Surface Geometry Inversion of Magnetotelluric Data                                                                                           | Shuowei Zhang, Xushan Lu, Jianbo Long, Huaifeng Sun                                                                                                                          |
| 15:15 – 15:45 | <b>Coffee break</b>                               |                                                                                                                                              |                                                                                                                                                                              |
| 15:45 – 16:45 | <b>Poster Session 6 (2P29-2P56 ; 10P01-10P09)</b> |                                                                                                                                              |                                                                                                                                                                              |
| 16:45 – 17:30 | <b>Discussion session 3</b>                       |                                                                                                                                              |                                                                                                                                                                              |
| 17:30 – 17:45 | <b>Break</b>                                      |                                                                                                                                              |                                                                                                                                                                              |
| 17:45 – 18:45 | <b>Division VI Business meeting 2</b>             |                                                                                                                                              |                                                                                                                                                                              |



## Friday, August 7

|               |                                                 |                                                                                                                                                                                                                                      |                                                                                                                                                                                                                     |
|---------------|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 09:00 – 09:15 | 02O12                                           | Automatic Differentiation for Electromagnetic Inversion                                                                                                                                                                              | Liu, L., Yang, D.                                                                                                                                                                                                   |
| 09:15 – 10:00 | <b>03R01 Review</b>                             | Electromagnetic induction studies in continental rift settings - A review                                                                                                                                                            | Huebert, J.                                                                                                                                                                                                         |
| 10:00 – 10:15 | 03O01                                           | The United States Magnetotelluric Array and the National Impedance Map                                                                                                                                                               | Kelbert, A., Bedrosian, P.A., Schultz, A., Egbert, G.D., Pellerin, L., Love, J.J., Frassetto, A., Murphy, B.S.                                                                                                      |
| 10:15 – 10:30 | 03O02                                           | 3D Magnetotelluric and Multigeophysical Constraints on the Tectonic Evolution of the Ribeira Orogen (Southeastern Brazil)                                                                                                            | Alves, A. O., Padilha, A. L., Fontes, S. L., Rocha, N. S., Benevides, A. S., La Terra, E. F., Chaves, C. A. M., Meju, M. A..                                                                                        |
| 10:30 – 11:00 | <b>Coffee break</b>                             |                                                                                                                                                                                                                                      |                                                                                                                                                                                                                     |
| 11:00 – 12:00 | <b>Poster Session 7 (3P01-3P38)</b>             |                                                                                                                                                                                                                                      |                                                                                                                                                                                                                     |
| 12:00 – 12:15 | 03O03                                           | New constraints on crustal electrical resistivity structure of the Trans-Hudson orogen in northern Manitoba                                                                                                                          | Lee, B., Tschirhart, V., Marks, J., Martins, T.                                                                                                                                                                     |
| 12:15 – 12:30 | 03O04                                           | Crustal Electrical Resistivity Structure of the JUNO Local Core Area and Implications for Geoneutrino Modeling                                                                                                                       | L. Zhou, D. Yang, F. Jiang, S. Feng, K. Wang                                                                                                                                                                        |
| 12:30 – 12:45 | 03O05                                           | Mantle melting and lithospheric structure beneath eastern Australia's Cenozoic volcanoes from 3D magnetotellurics                                                                                                                    | Margiono, R., Heinson, G.                                                                                                                                                                                           |
| 12:45 – 14:15 | <b>Lunch break</b>                              |                                                                                                                                                                                                                                      |                                                                                                                                                                                                                     |
| 14:15 – 14:30 | 03O06                                           | Lithospheric Reactivation, Alkaline Magmatism, and Deep Fluid Pathways Along the Southeastern Brazilian Margin: Insights from the MARES Magnetotelluric Array                                                                        | Benevides, A., Fontes, S., Alves, A., Meju, M., Maurya, V., Rocha, N., Padilha, A., Moreno, C., Nascimento, A., Gama Lima, G., La Terra, E., Vieira, F., Szameitat, L., Guimarães, S., Nascimento, F., Medeiros, M. |
| 14:30 – 14:45 | 04O01                                           | RMT Field Campaign at Laacher See (Eifel): Imaging of CO <sub>2</sub> -rich fluids rising near the surface                                                                                                                           | Schmitt, L., Weckmann, U.                                                                                                                                                                                           |
| 14:45 – 15:00 | 04O02                                           | Imaging and characterization of the Uturuncu volcanic system: links between deep magma storage and shallow hydrothermal circulation inferred from electrical resistivity structures and multi-physics observations                   | Manara, F., Comeau, M.J.                                                                                                                                                                                            |
| 15:00 – 15:15 | 04O03                                           | Discovery of a geothermal exploration target at the Cascade volcanic arc/Great Basin intersection through joint 3-D inversion of MT and gravity data, with constraints from seismic tomography, well data and thermodynamic modeling | Schultz, A., Tu, X.                                                                                                                                                                                                 |
| 15:15 – 15:45 | <b>Coffee break</b>                             |                                                                                                                                                                                                                                      |                                                                                                                                                                                                                     |
| 15:45 – 16:00 | 04O04                                           | Imaging Deep Geothermal Reservoirs and Fluid Pathways in Al-Lith, Saudi Arabia: Insights from 3D MT Inversion                                                                                                                        | Ashadi, A., Tezkan, B., Yogeshwar, P., Kirmizatis, P., Soupious, P.                                                                                                                                                 |
| 16:00 – 16:15 | 04O05                                           | Crustal structure of the Southern Peruvian Andes determined from broadband magnetotelluric data                                                                                                                                      | Unsworth, M.J., Calla-Pilco, D., Valencia-Miraval, C., Yupa-Paredes, R., Antayhua-Vera, Y., Garcia, B., Ramos-Palomino, D., Castelo-Cardenoso, S., Hogg, C., Delhaye, R., Hanneson, C., Lee, B.M., Nixon, C.        |
| 16:15 – 17:15 | <b>Poster Session 8 (4P01-4P24 ; 8P01-8P27)</b> |                                                                                                                                                                                                                                      |                                                                                                                                                                                                                     |
| 17:15 – 18:00 | <b>Discussion session 4</b>                     |                                                                                                                                                                                                                                      |                                                                                                                                                                                                                     |



## Saturday, August 8

|               |                             |                                                                                                                                                                                                |                                                                                                                                |
|---------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| 09:00 – 09:45 | <b>08R01<br/>Review</b>     | Electromagnetic Studies in Marine Rift Settings                                                                                                                                                | Schwalenberg, K., Müller, H.                                                                                                   |
| 09:45 – 10:00 | 08O01                       | Monitoring sequestration related mineralization processes in basalts using marine controlled source electromagnetics                                                                           | Jieyu Tan, Sebastian Hölz                                                                                                      |
| 10:00 – 10:15 | 08O02                       | Inferring the magmatic systems beneath submarine volcanoes (Whakaari and Tūhua) in New Zealand with 3D marine-MT models                                                                        | Bertrand, E.A., Heise, W., Constable, S.C., Miller, C., King, R.B., Caldwell, T.G.                                             |
| 10:15 – 10:30 | 08O03                       | Magnetotelluric survey suggests a fluid-rich rupture barrier on the Gofar oceanic transform fault, East Pacific Rise                                                                           | Hummel, N., Chesley, C., Fan, W., and Evans, R. L.                                                                             |
| 10:30 – 11:00 | <b>Coffee break</b>         |                                                                                                                                                                                                |                                                                                                                                |
| 11:00 – 11:15 | 08O04                       | EM Evidence for A Shallow LAB Supported by Small-scale Convection at the Goban Spur Magma-Poor Rifted Margin                                                                                   | Kyle Ivey, Steven Constable, Raghu Gudipati, Gaye Bayrakci, Tim Minshull, Marta Pérez Gussinyé, Javier García-Pintado, Yuan Li |
| 11:15 – 11:30 | 09O01                       | Integrating Magnetotelluric Data in Multi-Geophysical Modelling for Thermochemical Imaging: from Superior Craton to Grenville Orogeny                                                          | Lei, L.L., Afonso, J. C., Dong, H., Jones, A. G., Jin, S., Liu, J.G.                                                           |
| 11:30 – 11:45 | 10O01                       | Single-station induction vector analysis on Mars: what can be inferred about the external source field and the resistivity structure beneath Elysium Planitia from InSight magnetic field data | Hoshino, S., Minami, T., Harada, Y., Terada, N., Sato, M., Ogawa, Y., Matsushima, M., Shimizu, H., Noguchi, R.                 |
| 11:45 – 12:30 | <b>Discussion session 5</b> |                                                                                                                                                                                                |                                                                                                                                |
| 12:30 – 12:45 | <b>Break</b>                |                                                                                                                                                                                                |                                                                                                                                |
| 12:45 – 13:15 | <b>Closing ceremony</b>     |                                                                                                                                                                                                |                                                                                                                                |
| 18:00 – 21:30 | <b>Closing banquet</b>      |                                                                                                                                                                                                |                                                                                                                                |



# Poster Sessions

## Poster Board Layout

### Exhibitor Booths

Break Tables

|       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 01P01 | 02P01 | 01P02 | 02P02 | 01P03 | 02P03 | 01P04 | 02P04 | 01P05 | 02P05 |
| 02P11 | 01P12 | 02P13 | 01P13 | 02P14 | 01P14 | 02P15 | 01P15 | 02P16 | 01P16 |

|       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 01P06 | 02P06 | 01P07 | 02P07 | 01P08 | 02P08 | 01P10 | 02P09 | 01P11 | 02P10 |
| 02P17 | 01P17 | 02P18 | 01P18 | 02P19 | 01P19 | 02P20 | 01P20 | 02P21 | Gap 1 |

|       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 03P01 | 02P22 | 03P02 | 02P23 | 03P03 | 02P24 | 03P04 | 02P25 | 03P06 | 02P26 |
| 02P32 | 03P13 | 02P33 | 03P15 | 02P34 | 03P16 | 02P35 | 03P18 | 02P36 | 03P20 |

|       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 03P07 | 02P27 | 03P08 | 02P28 | 03P10 | 02P29 | 03P11 | 02P30 | 03P12 | 02P31 |
| 02P37 | 03P21 | 02P38 | 03P22 | 02P39 | 03P23 | 02P40 | 03P24 | 02P41 | 03P25 |

|       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 03P26 | 02P42 | 03P27 | 02P43 | 03P28 | 02P44 | 03P29 | 02P45 | 03P30 | 02P46 |
| 02P52 | 03P36 | 02P53 | 03P37 | 02P54 | 03P38 | 02P55 | Gap 2 | 02P56 | 04P01 |

|       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 03P31 | 02P47 | 03P32 | 02P48 | 03P33 | 02P49 | 03P34 | 02P50 | 03P35 | 02P51 |
| 05P02 | 04P02 | 05P03 | 04P03 | 05P04 | 04P04 | 05P05 | 04P05 | 05P06 | 04P06 |

|       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 04P07 | 05P08 | 04P08 | 05P09 | 04P09 | 05P10 | 04P10 | 05P11 | 04P11 | 05P12 |
| 05P18 | 04P17 | 05P20 | 04P18 | 05P21 | 04P19 | 05P22 | 04P20 | 05P23 | 04P21 |

|       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 04P12 | 05P13 | 04P13 | 05P14 | 04P14 | 05P15 | 04P15 | 05P16 | 04P16 | 05P17 |
| 05P24 | 04P23 | 05P25 | 04P24 | 05P26 | 04P25 | 05P27 | 04P26 | 05P28 | 04P27 |

|       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 06P04 | 05P29 | 06P05 | 05P30 | 06P06 | 05P31 | 06P07 | 05P32 | 06P08 | 05P33 |
| 08P06 | 07P07 | 08P07 | 07P08 | 08P08 | 07P09 | 08P09 | 07P10 | 08P10 | 07P12 |

|       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 07P01 | Gap 3 | 07P02 | 08P01 | 07P04 | 08P03 | 07P05 | 08P04 | 07P06 | 08P05 |
| 08P11 | 07P13 | 08P12 | 07P14 | 08P13 | 07P15 | 08P14 | 07P16 | 08P15 | 07P17 |

|       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|
| 07P18 | 08P16 | 07P19 | 08P17 | 08P01 | 08P18 |
| 08P24 | 10P02 | 08P27 | 10P03 | 11P01 | 10P04 |

|       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 09P02 | 08P15 | 10P03 | 08P20 | 09P04 | 08P21 | 09P05 | 08P22 | 10P01 | 08P23 |
| 11P02 | 10P05 | 11P03 | 10P06 | 11P04 | 10P08 | Gap 4 | 10P09 | Gap 5 | Gap 6 |

Break Tables

Break Tables



## Poster 1 — Monday 3 Aug, 11:00–12:00

Boards: 5P01-5P20

| ID    | Title                                                                                                                                             | Authors                                                                                                                                                                     |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 05P02 | Machine Learning-Assisted AMT Exploration for Pb-Zn in Strong Noisy Environments                                                                  | Ahmad Jawad, Rujun Chen, Mao Lu, Yaseen Muhammad, Kouabena Kouakou Assom Wilfried, Fahad Shah, Ali Shah Shahid, Ahmad Noori Naseer                                          |
| 05P03 | Conductive and polarizable S-planes: differential and integral methods for interpretation of semi-airborne TEM data and their application         | V. Hallbauer-Zadorozhnaya V, Kaminski V.F., Sekachev P.M., Zakharkin A.K.                                                                                                   |
| 05P04 | Deep undercover greenfield exploration in south-east Western Australia                                                                            | Seillé, H., Visser, G., Love, M., McKenna, K., Thiel, S.                                                                                                                    |
| 05P05 | Magnetotelluric Data for Greenfield mineral exploration in Norrbotten, Sweden                                                                     | Rydman, O., Smirnov, M. Yu., Veress, E.                                                                                                                                     |
| 05P06 | Sensitivity tests in 3D of CSEM data from a noisy mining environment in Northern Sweden.                                                          | Rydman, O., Smirnov, M. Yu., Schöttle S.                                                                                                                                    |
| 05P08 | Deep electrical conductivity structure of Nautanen IOCG deposit from high resolution magnetotelluric survey                                       | Smirnov M.Yu., Bauer T., Rydman O., McGimpsey I., Kamm J., Hill G., Vozar J.                                                                                                |
| 05P09 | Magnetotelluric imaging for direct detection of mineralization: Opportunities and challenges                                                      | Murphy, B., Spratt, J., Hoskin, T., Evans, S., Peterson, H.                                                                                                                 |
| 05P10 | Integrated 3D Geophysical Imaging and Geochemistry for Geologic Hydrogen Exploration in the Maricá Play, Southeastern Brazil                      | Fontes, S., Benevides, A., Alves, A., Meju, M, La Terra, E, Ganade de Araujo, C., Padilha, A, Pinheiro, M., Benetti, B, Rocha, N., Vieira, F., Medeiros, M., Nascimento, F. |
| 05P11 | 3D Inversions of Airborne Natural Source EM data - ZTEM and MobileMT                                                                              | Mackie, R., Soyer, W.                                                                                                                                                       |
| 05P12 | Exploration for critical raw material resources in Europe with magnetotellurics                                                                   | Tietze, K., Ritter, O., Weckmann, U., Platz, A., Holdstock, M., Rieger, P., Susin, V., Melo, A., Torremans, K.                                                              |
| 05P13 | Linking regional scale surveying to deposit scale exploration with airborne natural source EM                                                     | Thiede, A., Schiffler, M., Schneider, M., Patzer, C., Becken, M., Stolz, R., Kamm, J.                                                                                       |
| 05P14 | Mitigating infrastructure coupling in semi-airborne EM data from the Oberharz mining district: current status and ongoing developments            | Treppke, H., Thiede, A., Becken, M. & the DESMEX working group                                                                                                              |
| 05P15 | Lower-crustal controls on IOCG mineralisation in the Olympic Domain, Australia                                                                    | Bizhani, H., Heinson, G.                                                                                                                                                    |
| 05P16 | Physics-based and data-driven Integration of multivariate geophysical data                                                                        | Bizhani, H., Heinson, G., Yeats, C., DeTata, D.                                                                                                                             |
| 05P17 | Configurations of Airborne Total-Field Passive Electromagnetic Systems and Their Applications                                                     | Aexander Prikhodko, Andrei Bagrianski, Petr Kuzmin, Aamna Sirohey                                                                                                           |
| 05P18 | Sign Reversal Phenomenon in Electrical-source Transient Electromagnetic Methods: Characteristics, Reasons and Applications                        | Zhou, Nannan., Lu, Xushan., Zhang, Zhenghu., Wei, Xinhao., Ma, Xiaoyin.                                                                                                     |
| 05P20 | NovaScan - UAV natural field Earth conductivity mapping system with examples from the Lockerby East Nickel Ni-Cu sulfide deposit, Ontario, Canada | Eso, R., Polzer, B.                                                                                                                                                         |





## Poster 2 — Monday 3 Aug, 15:45–16:45

Boards: 5P21-5P33 ; 11P01-11P04 ; 9P01-9P05

| ID    | Title                                                                                                                                                               | Authors                                                                                                                                                                       |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 05P21 | Intergrating plant geochemistry with airborne electromagnetic data for lithology classification.                                                                    | E. Kerubo, L. Dujmovic, M. Aranha, F. Dauti, G. Fiandaca, S. Pospiech, R. Tolosana-Delgado and T. Günther                                                                     |
| 05P22 | Using 1D Occam Inversion for Airborne Electromagnetic Data to Map Mineralization Zones in the Karasjok Greenstone Belt, northern Norway                             | Wang, S., Slagstad, T., Baranwal, V.C.                                                                                                                                        |
| 05P23 | 3D Joint Inversion for Mineral Systems in the Kuusamo Schist Belt, Finland                                                                                          | Marzouk, H., Roots, E., Autio, U., Kovacikova, S., Castro, C., Eberhard, L., Wei, Y., Kyselica, J., Moorkamp, M., Hill, G., Kamm, J.                                          |
| 05P24 | What is the electromagnetic signature of a geologic hydrogen system?                                                                                                | Daruso, R., Gubina, A., Margiono, R., Heinson, G., Holford, S.                                                                                                                |
| 05P25 | The crust and upper mantle tectonic structure of the central Norwegian Caledonides and their Precambrian basement from 3D inverse geoelectrical model               | S. Kovacikova, G. Hill, Eric Roots, S. Gradmann, J. Jakob, K. Saalman, M. Smirnov, J. Kamm, J.Vozar                                                                           |
| 05P26 | Preliminary results from the UNDERCOVER project MT array: Insights into the lithospheric factors controlling mineralization within the Kuusamo Schist Belt, Finland | Eric Roots, Uula Autio, Svetlana Kovacikova, Hossam Marzouk, Cesar Castro, Laura Eberhard, Juraj Kyselica, Yunong Wei, M. Kamila Diaz, Max Moorkamp, Graham Hill, Jochen Kamm |
| 05P27 | Natural hydrogen from groundwater radiolysis: mapping source, migration and trapping formations using integrated geophysical surveys                                | Gubina A., Herrera J., Daruso R., Margiono R., Heinson G.                                                                                                                     |
| 05P28 | Lithospheric controls on large copper mineral systems: Insights from a 3D electrical resistivity model of the Kerman Porphyry Belt, Iran                            | Filbandi Kashkouli, M., Comeau, M.J., Vizheh, M.M.                                                                                                                            |
| 05P29 | From mantle to mine: lithospheric multilevel structural controls on the genesis of orogenic gold deposits                                                           | Wang, T., Comeau, M.J., Zhou, Z. Kong, W., Yu, N.                                                                                                                             |
| 05P30 | Semi-airborne EM surveying for nuclear waste site characterization - preliminary results from the Harsefeld salt dome in northern Germany                           | Plett, J., Marzouk, H., Becken, M., Schiffler, M., Schneider, M., Rochlitz, R., Rippe, D.                                                                                     |
| 05P31 | Preliminary results of the UNDERCOVER semi-airborne EM survey at the Juomasuo deposit (Kuusamo Schist Belt, Finland)                                                | Thiede, A., Schiffler, M., Patzer, C., Schneider, M., Becken, M., Stolz, R., Kamm, J.                                                                                         |
| 05P32 | Regional 3D resistivity architecture of the Kalgoorlie-Norseman gold province (Western Australia): Insights from combined BBMT and LMT modeling.                    | Piña-Varas, P.; Dentith, M.                                                                                                                                                   |
| 05P33 | Sinkhole Development at the Dead Sea: A Validation Study Using Transdimensional Bayesian Inversion of TEM Data                                                      | Abu Rajab, J., Yogeshwar, P., Tezkan, B., Al-Halbouni, D.                                                                                                                     |
| 11P01 | Electromagnetic Odyssey: An educative video game to learn how to set up Magnetotelluric and Transient Electromagnetic soundings.                                    | Ruiz-Aguilar, D., Alvarez-Molina, K., Romero-Ramos, L., Sánchez Basoco, G., Méndez González, A.                                                                               |
| 11P02 | Using Minecraft as a Youth-Targeted Educational Tool for Geophysical Methods                                                                                        | Johnson, A., Malcolm, A., Farquharson, C.                                                                                                                                     |
| 11P03 | The AuScope/NCI HPCD Geophysics Platform: Building Computational Infrastructure for Next Generation Geophysics                                                      | Rees. N., Kay, B., Yang, R., Hollmann, H., Croucher, J., Sun, Y., Farrington, R., Robinson, A., Wyborn, L.                                                                    |
| 11P04 | IAGA Division VI: A Global Community in Numbers                                                                                                                     | Weckmann, U., Ritter, O.                                                                                                                                                      |
| 09P01 | Geometrical and resistivity-contrast effects on normal-resistivity logs in hard-rock vein systems                                                                   | Nemati, Y., Dupuis, J.C., Giroux, B. and Smith, R.                                                                                                                            |
| 09P02 | Bridging the Conductivity Constraints of Magnetotelluric Observations and Laboratory Experiments: A Study on Mid-lower Crustal Melts in Lhasa Terrane               | Wu, X., Dong, H., Chen, J., Li, Y.,                                                                                                                                           |
| 09P03 | The electrical property of the lower crustal rock of intra-continental setting porphyry copper deposits and its constraints on the mineralization process           | Wang, Gang, Fang, Hui, Pei, Fagen                                                                                                                                             |
| 09P04 | Laboratory measurements SIP of ceramic samples with disseminated nickel conductive                                                                                  | Bukhalov S.V., Hallbauer-Zadorozhnaya V., Denisuk E.A., Kokodey D.Yu., Baksheev A.S.                                                                                          |
| 09P05 | Constraining the LAB properties in the Pacific seafloor using MT and seismic data                                                                                   | Singh, A. P., Naif, S., Russell, J. B., Gaherty, J.                                                                                                                           |



## Poster 3 — Tuesday 4 Aug, 11:00–12:00

Boards: 1P01-1P20

| ID    | Title                                                                                                                                                | Authors                                                                                         |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| 01P01 | Recognition-guided adaptive suppression of interference in spread-spectrum induced-polarization data using a feature-token Transformer               | Qing Zhang, Rujun Chen, Haojie Qin, Hongchun Yao                                                |
| 01P02 | Robust sferic signal recognition for audio magnetotelluric data with Kolmogorov--Arnold nonlinear modeling                                           | Qing Zhang, Rujun Chen, Hongchun Yao                                                            |
| 01P03 | When Noise is the Structure: A Reversed Self-Supervised Framework for Noise Suppression in AMT Signals                                               | Qing Zhang, Rujun Chen, Hongchun Yao                                                            |
| 01P04 | High-order pseudo-random signal for electromagnetic explorations                                                                                     | Yang Yang, Changyu Zhou                                                                         |
| 01P05 | Long-Period Magnetotelluric Data Denoising via Time-Frequency Fusion and Self-Supervised Deep Learning                                               | Li, G., Liu, X., Chen, L.                                                                       |
| 01P06 | ExtrEM – Resistivity imaging up to 10km depth and more with Controlled Source EM in land                                                             | Bretonneau F., Patzer C., Védérine S., Kim B., Kamm J.                                          |
| 01P07 | Temporal Variability of MT Responses from Three-Year OBEM Records                                                                                    | Hung, C.-H. A., Lin, P.-Y. P., Utada, H., Baba, K.                                              |
| 01P08 | Temporal Variability of Natural Electromagnetic Source Fields and Its Influence on MT Data Quality                                                   | Erdogan, E., Jones, A. G.,                                                                      |
| 01P10 | Passive power line effects in MT tipper data – observations from northeastern Finland                                                                | Autio, U., Kamm, J., Patzer, C., Roots, E., Hill, G., Marzouk, H., Kovacikova, S., Moorkamp, M. |
| 01P11 | Development of a new UAV-towed three-component Receiver System for Semi-airborne Electromagnetics                                                    | Rochlitz, R., Ueding, S., Oppermann, F., Kotowski, P., Mörbe, W., Becken, M.                    |
| 01P12 | On the processing of marine controlled source electromagnetic data acquired with a mobile, dual-polarization transmitter and stationary receivers    | Hölz, S., Reeck, K., Córdoba-Ramírez, F., Attias, E., Haroon, A.                                |
| 01P13 | SkyTEM DigiTEM systems: a higher level of AEM data acquisition and processing.                                                                       | Segovia, M.J., Garrie, D., Nyboe, N. S., Nielsen, E.                                            |
| 01P14 | Data acquisition unit for broadband magnetotelluric station                                                                                          | Pronenko, V., Shenderuk, S., Prystai, A.                                                        |
| 01P15 | Skating on thin ice with ground penetrating radar                                                                                                    | Leitch, A.                                                                                      |
| 01P16 | Frequency-domain controlled-source electromagnetic experiment using high-order pseudo random binary signals emitted in a deep underground laboratory | Y. Yang, Z. Liu, J. Ruan, L. Liu                                                                |
| 01P17 | Large-scale underground spread spectrum induced polarization (SSIP) imaging system based on wireless synchronization and wireless charging           | Rujun Chen, Zhongjiang Wu, Donghai Yu, Kai Yu, Shaoheng Chun                                    |
| 01P18 | Mobile system for CSRMT method with towed transmitter                                                                                                | Shlykov, A., Saraev, A. Bobrov, N.                                                              |
| 01P19 | New drone-based system for semi airborne CSEM                                                                                                        | Shlykov, A.                                                                                     |
| 01P20 | Direct frequency-domain control of transmitter waveforms for controlled-source electromagnetic surveys                                               | Zhang, H., Yang, Y., He, J., Zhou, C.                                                           |



## Poster 4 — Tuesday 4 Aug, 16:15–17:15

Boards: 2P01-2P28

| ID    | Title                                                                                                                                 | Authors                                                                                   |
|-------|---------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| 02P01 | An Intelligent Method for Electromagnetic Coupling Removal in Large-Depth Frequency-Domain Induced Polarization                       | Qin, H., Chen, R., Yang, S.                                                               |
| 02P02 | Randomized blocky Occam for generating 2D resistivity models with sharp contrasts from electromagnetic data                           | Eliana Vargas-Huitzil, Matthias Morzfeld, Steven Constable                                |
| 02P03 | A SimPEG-Based 3D Forward Modeling Framework for Electromagnetic Coupling in Deep FDIP Surveys                                        | Qin, H., Chen, R., Zhao, Y.                                                               |
| 02P04 | Accelerating 2D Magnetotelluric Bayesian Inversion based on Dual-Space Reduced Basis Method                                           | Cui, Y., Dong, H.                                                                         |
| 02P05 | Stochastic model exploration in three-dimensional inversion of magnetotelluric data                                                   | Mishra, P. K., Kamm, J., Patzer, C., Autio, U., Xiao, L., Sen, M. K.                      |
| 02P06 | AI Multiphysics Inversion (AIMI) – a framework for accelerated 3-D inverse modeling                                                   | Fry, B., Schultz, A.                                                                      |
| 02P07 | A Unified Framework for Joint MT, Gravimetric, and Magnetic Inversion based on Multivariate Mutual Information Coupling               | Dong, H., Guo, C.,                                                                        |
| 02P08 | Rapid 3D Magnetotelluric Simulations using Domain Decomposition and Reduced-Order Methods                                             | Tao, L., Zlotnik, S., Muixí, A., Zyserman, F., Afonso, J.C., Díez, Pedro                  |
| 02P09 | Surface geometry inversion for magnetotelluric data: A comparison with mesh-based minimum-structure inversion                         | Long, J., Lelièvre, P., Farquharson, C.                                                   |
| 02P10 | Bayesian inversion of DC resistivity data using a DeepONet forward operator                                                           | Weit, S., Spitzer, K., Rheinbach, O.                                                      |
| 02P11 | Efficient Parallel inversion of 3-D time-domain electromagnetic data based on a Rational Best Approximation of the Matrix Exponential | Börner, R.-U., Günther, Th,                                                               |
| 02P13 | Joint inversion of magnetotelluric, gravity, and surface-wave data in southern Africa                                                 | Ruijin Kong, Max Moorkamp, Zhengyong Ren                                                  |
| 02P14 | Implicit Neural Representation for Two- and Three-Dimensional Magnetotelluric Inversion                                               | Wang, Yanyi., Attias, Eric., Garcia, Xavier., Guo, Zhenwei., Liu, Jianxin., Zhang, Boyao. |
| 02P15 | Bringing gradients to empymod - new opportunities for horizontally layered electromagnetic inversion                                  | Deleersnyder, W., Werthmüller, D., Soler, S., Heagy, L.                                   |
| 02P16 | Mechanism and Methodology of Short-Offset Frequency-Domain Electrical-Source Electromagnetic Method                                   | Ma, Xiaoyin., Zhou, Nannan., Zhang, Zhenghu., Wei, Xinhao.                                |
| 02P17 | Signal Contribution and Sensitivity for Frequency-Domain Electromagnetic Methods                                                      | S. L. Butler                                                                              |
| 02P18 | Accelerating Bayesian Inversion of Magnetotelluric Data with Neural Operators                                                         | Singh, A.P., Naif, S.                                                                     |
| 02P19 | Inversion of airborne natural-source electromagnetic data                                                                             | Kangazian, M., Farquharson, C.,                                                           |
| 02P20 | Parallel Optimization of Transient Electromagnetic Modelling using a Rational Best Approximation                                      | Jonaca, D.T., Günther, T., Börner, R-U.                                                   |
| 02P21 | Three-Dimensional Transient Electromagnetic Modeling and Inversion Considering the Waveform Effects                                   | Gao, J., Wang, M., Lin C., Peng M., Tan, H.                                               |
| 02P22 | Open-source Release of ModEM Software                                                                                                 | Kelbert, A., Curry, M., Dong, H. and Egbert, G.                                           |
| 02P23 | 3-D magnetotelluric inversion using node-based blockwise-continuous parameterization on unstructured tetrahedral meshes               | Huang Chen, Nian Yu, Yingqiang Ran                                                        |
| 02P24 | Advancing Geophysics with Reduced Order Models: Applications in Seismic Wave Propagation and Marine Electromagnetics                  | Reinicke, I., May, D. A., Constable, S.                                                   |
| 02P25 | 3D inversion of TDEM data based on Rational Arnoldi method using custEM & pyGIMLi: sensitivity calculation and synthetic validation   | Cai, J., Yogeshwar, P., Fang, G., Tezkan, B., Liu, L., Rochlitz, R.                       |



|       |                                                                                                                    |                                                             |
|-------|--------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| 02P26 | Improved Physics-Informed Neural Network for Multi-Frequency 2D Magnetotelluric Forward Modeling                   | Wang, Wenchuang., Li, Jianhui.                              |
| 02P27 | 3D Inversion of Multi-Component Fixed-Loop Transient Electromagnetic Data: A Study of the Roter Kamm Impact Crater | Nienhaus, H., Yogeshwar, P., Mörbe, W., Liu, Y., Tezkan, B. |
| 02P28 | Two-Dimensional Inversion of Direct Current Resistivity Method Based on UNet Network                               | Mao Wang, Jingyu Gao, Handong Tan, Changhong Lin, Miao Peng |

## Poster 5 — Thursday 6 Aug, 11:00–12:00

Boards: 6P01-6P8 ; 7P01-7P19

| ID    | Title                                                                                                                                 | Authors                                                                                                                                                                                                                     |
|-------|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 06P01 | Comparison of quasi-2D semi-mobile and mobile TEM with 2D ERT for estimating hydraulic properties                                     | Willkommen, G., Costabel, S., Martin, T., Bjørn, S.                                                                                                                                                                         |
| 06P02 | Radiomagnetotelluric (RMT) Investigation of Coastal Aquifers in Qingdao, China: Freshwater Mapping with TEM-Based Validations         | Salas, J., Tezkan, B., Li, Y., Ibraheem, I., Luo, M., Göcer, B., Cai, J., Yogeshwar, P., Mörbe, W.                                                                                                                          |
| 06P03 | TEM-Based Delineation of Seawater Intrusion and Aquifer Structure in the Eastern Dagu River Coastal Zone, Qingdao, China              | Ibraheem, I., Tezkan, B., Luo, M., Burberg, S., Li, Y.                                                                                                                                                                      |
| 06P04 | Can data-driven models replace physics? Formalizing the assessment of a CNN for UXO Classification in EMI Surveys                     | Deleersnyder, W., Beran, L., Heagy, L.                                                                                                                                                                                      |
| 06P05 | Electromagnetic and GPR surveys of simulated burials replicating unmarked graves                                                      | Mancuso, C., Ferguson, I., Decter, K., Smith, R., Nichols, K., Perrin, B., Braun, A.                                                                                                                                        |
| 06P06 | Magnetotelluric imaging of subglacial electrical conductivity structures at the grounding zone of Ekström Ice Shelf, East Antarctica. | Rebolé-Canals, S., Grayver, A., Ritter, O., Weckmann, U., Fromm, T.                                                                                                                                                         |
| 06P07 | Using semi-airborne, controlled-source radio-magnetotelluric method to map quick clays, synthetic studies                             | Yanev, M., Wang, S.                                                                                                                                                                                                         |
| 06P08 | RMT and TEM investigations to image coastal landslides in Mexico: Feasibility studies and preliminary field data results              | Alvarado-Izarraras, L.G. , Ruiz-Aguilar, D., Yogeshwar, P., and Tezkan, B..                                                                                                                                                 |
| 07P01 | The Potential of Radiomagnetotellurics for Detecting Dike Instabilities                                                               | Vanoli, R., Werthmüller, D., Weckmann, U., Rulff, P.                                                                                                                                                                        |
| 07P02 | Detection of Concealed Seepage Pathways in an Earth Dam Using True 3D SSIP Method: A Case Study of Youyi Reservoir, Hunan, China      | Zhao Y.J., Chen R.J., Qin H. J.                                                                                                                                                                                             |
| 07P04 | CSEM modelling and survey for monitoring of CO2 sequestration at the Aquistore site in Canada                                         | Ansari, S.M., Ferguson, I., White, D., and Thomas, A.                                                                                                                                                                       |
| 07P05 | 3D Multiple Geophysical Modeling and Sensitivity Analysis for Marine CO2 Storage                                                      | Wang, Yanyi., Attias, Eric., Garcia, Xavier., Liu, Jianxin., Zhang, Boyao., Guo, Zhenwei.                                                                                                                                   |
| 07P06 | DecarbFaroe: Geophysical Site Characterization for CO2 Mineralization in Basalt on the Faroe Islands                                  | Börner, J.H., Jacobsen, B., Kopf, A., Dölger, E., Weigelt, J., Eidesgaard, O., Olavsdottir, J., Bussat, S.                                                                                                                  |
| 07P07 | Characterizing Cyclic Geosystems Through Multi-method Geophysical Observations: Insights from Strokkur Geyser (Iceland)               | J.H. Börner, A. Henriquez, M. Hort, D. Peppel, M. Scheunert, K. Spitzer                                                                                                                                                     |
| 07P08 | Continuous CSEM monitoring of vapor layer dynamics at Inferno Crater Lake, New Zealand: 3-D modeling and preliminary inversion        | Kitaoka, N., Ogawa, Y., Caldwell, G., Ishizu, K., Minami, T., Kirkby, A.                                                                                                                                                    |
| 07P09 | Detectability limits of temporal magnetotellurics in active volcanic systems                                                          | Castro, C., Hill, G., Moorkamp, M., Kováčiková, S., Maetschke, K., Klicpera, J., Avram, Y., Brook-Allred, T., Kamm, J., Manara, F., Comeau, M., Agustsdottir, T., Árnason, K., Hogg, C., Junge, A., Kiyan, D., Burjáněk, J. |



|       |                                                                                                                                   |                                                                                                                                        |
|-------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| 07P10 | Seismo-Electromagnetic Signature of the 2018 Kilauea Lower Puna Eruption from Integrated MT, Seismic, and Infrasound Observations | Marzouk, H., Hamama, I., Fadel, I., Avram, Y.                                                                                          |
| 07P12 | A Comparative Study Of Geomagnetic Storm Impacts Across Hemispheres                                                               | N. R. Schnepf, P. Bedrosian, S. Thiel, G. Heinson, B. Waghule, L. Wang, R. A. Marshall, A. Kelbert and G. M. Lucas                     |
| 07P13 | Improving Geoelectric Hazard Assessments within the Eastern United States                                                         | Bedrosian, P.A., Peterson, D.E., Crosbie, J.W., Getty, K., Wilson, G.S., Koenig, P.O., Williams, C.S., Wirth, H., Loya, M., Love, J.J. |
| 07P14 | Equatorward Expansion Of Geomagnetic Power During Severe Storms                                                                   | N. R. Schnepf, B. Waghule, J. J. Love, and A. N. Willer                                                                                |
| 07P15 | New Geoelectric Hazard Mapping of the Iberian Peninsula                                                                           | R. Hafizi, A. Marcuello, A. Martí, P. Piña-Varas, P. Queralt, J. Campanyà, J. Ledo and J. Alves Ribeiro                                |
| 07P16 | Implications of Broadband and Long-Period MT Measurements for Geoelectric Field Reconstruction in Italy                           | De Girolamo, M., Consolini, E., Pignatiello, G., De Michelis, P., Siniscalchi, A.                                                      |
| 07P17 | Influence of 3-D Earth Conductivity Structure on Geomagnetically Induced Currents                                                 | Cordell, D. Parry, H. Mann, I.R.                                                                                                       |
| 07P18 | From Sun to Transformers: simulations of GICs during extreme electromagnetic events in New Zealand power grid                     | Kruglyakov M., Welling D., Dredger P., Rodger C., Mac Manus D., Dalzell M., Heise W., Bertrand E.                                      |
| 07P19 | Geoelectric field modelling to assess railway signalling misoperation during space weather events                                 | Huebert, J., Beggan, C., Richardson, G., Patterson, C., Wild, J.                                                                       |

## Poster 6 — Thursday 6 Aug, 15:45–16:45

*Boards: 2P29-2P56 ; 10P01-10P09*

| ID    | Title                                                                                                                                                                | Authors                                                                                                    |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| 02P29 | Preliminary development of airborne AFMAG inversion using deep learning and its practical for uranium exploration in Athabasca Basin, Saskatchewan, Canada           | X. Liu, V. Tschirhart, B. Lee, J. Craven                                                                   |
| 02P30 | 3D Forward Modeling of SIP Based on the SEM                                                                                                                          | Zhao Y. J., Chen R. J. ,Liu H. F.,Qin H. J.                                                                |
| 02P31 | Parametric level-set inversion of TDEM data using Radial Basis Functions                                                                                             | Pokar, P., Heagy, L.                                                                                       |
| 02P32 | 3D U-Net-based three-dimensional inversion for short-offset transient electromagnetic data                                                                           | Yang Zhao, Xin Wu                                                                                          |
| 02P33 | Simultaneous 2D inversion of radiomagnetotelluric data for electric resistivity and dielectric permittivity                                                          | Uebel, E., Kalscheuer, T.                                                                                  |
| 02P34 | A hybrid air-earth interface treatment for time-domain land CSEM modelling without explicit air-layer discretisation                                                 | Liu, Y., Ziolkowski, A.                                                                                    |
| 02P35 | Efficient and Scalable Finite-Element Magnetotelluric Modeling on High-Order Meshes                                                                                  | Qin, C., Grayver A.                                                                                        |
| 02P36 | Three-dimensional magnetotelluric inversion using integral equation method and non-local parametrization                                                             | Kruglyakov M., . Kuvshinov A.,                                                                             |
| 02P37 | Comparison of Fast Iterative Solution Schemes for 3D Electromagnetic Forward Modeling in Arbitrarily Anisotropic Media Using the Vector Finite Element Method        | Wenwu Tang, Juzhi Deng, Huahao Zheng, Rui Mi, and Qinghua Huang                                            |
| 02P38 | Truncated model space-based Gauss-Newton 3D inversion methods for airborne natural source electromagnetic data                                                       | Minghong Liu, Xushan Lu, Huaifeng Sun, Shikai Shen, Binru Luo, and Shuwei Zhang                            |
| 02P39 | Optimization of a Fast High-Order Finite-Element Time-Domain Electromagnetic Solver for Developing Site Specific ML models for Highly Conductive Targets             | Amirkabiri, A., Attar, A., Duan, B., Kang, S., Jeffrey, I., LoVetri, J., Gilmore, C.                       |
| 02P40 | 3D Inversion and Resolution Analysis of Various Source Configurations for CS-/RMT: A Comparative Study with Field Validation in Baryshevo (Karelian Isthmus), Russia | Schöttle S., Smirnov M., Grayver A., Smirnova M., Yogeshwar P., Mörbé W., Shlykov A., Saraev A., Tezkan B. |



|       |                                                                                                                                   |                                                                                                                                                    |
|-------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| 02P41 | Mathematical modelling of 2D medium containing of sets conductive S-planes and inserts.                                           | V. Hallbauer-Zadorozhnaya                                                                                                                          |
| 02P42 | A 3D Inversion Algorithm for Transient Electromagnetics with Induced Polarization Effects Based on the FDTD Method                | Zhao, Q., Liu, S., and Sun, H.                                                                                                                     |
| 02P43 | A Dual-domain GAN Framework of Synthesizing Electromagnetic Satellite Data for Detecting Seismic Anomalies                        | Yaxin Bi, Xuemin Zhang, Maja Pavlovic, Peter Nicholl and Lawrence Murchan                                                                          |
| 02P44 | 3D inversion of the tensor CSRMT data                                                                                             | Shlykov, A., Saraev, A., Bobrov, N.                                                                                                                |
| 02P45 | A new inversion framework for SimPEG                                                                                              | Soler, S., Capriotti, J., Kuttai, J., Heagy, L.                                                                                                    |
| 02P46 | Quantitative Model Appraisal (QMA): A detectability-based framework for evaluating electromagnetic response differences           | Junge, A., Diaz, M. K., Castro, C.                                                                                                                 |
| 02P47 | Physics-guided deep hybrid autoencoder for 3D magnetotelluric inversion                                                           | Longying Xiao, Jochen Kamm, Mrinal K. Sen, Pankaj K. Mishra                                                                                        |
| 02P48 | 3D Joint Magnetotelluric Inversion with Axial Anisotropy and Galvanic Distortion Correction                                       | Kong, W.X., Yu, N., Zhang, C., Jiang, Y.L.                                                                                                         |
| 02P49 | Three-dimensional Long-Period MT Modeling with Realistic Source Fields                                                            | G.D. Egbert and A. Kelbert                                                                                                                         |
| 02P50 | 1D Simulation and Inversion of Electromagnetic Data Using COMSOL Multiphysics                                                     | Fernandez, Cesar., Butler, Samuel.                                                                                                                 |
| 02P51 | Inversion of IP-distorted TEM data: comparison between deep-learning and conventional inversion approaches                        | Sharifi, F., Luo, M., Li, Y., Ibraheem, I., Yogeshwar, P., Duan, S., Tezkan, B.                                                                    |
| 02P52 | Hyssi4D: A Hybrid Simultaneous–Sequential Inversion Framework with Iterative Coupling for 4D (Time-Lapse) Magnetotelluric Imaging | Song, H., Moorkamp, M., Hill, G., Chen, C., Roots, E., Maetschke, K., Schultz, A., Gahr, S., Karcioglu, G., Avram, Y., Torres, J., Wei, Y., Yu, P. |
| 02P53 | Accelerating the 3-D MT inverse problem using explicit preconditioners                                                            | Kara, K. B., Peksen, E., Farquharson, C. G.                                                                                                        |
| 02P54 | Three-dimensional Magnetotelluric Inversion based on a Data Space variant of Akaike's Bayesian Information Criterion              | Song, H., Yu, P., Usui, Y., Uyeshima, M., Diba, D., Zhang, L.                                                                                      |
| 02P55 | Synthesizing natural-source airborne EM time series for ZTEM processing                                                           | Cao, X., Huang, X., Yan, L., Hu, Y., and Han, Q.                                                                                                   |
| 02P56 | Disentangling Epistemic and Aleatoric Uncertainties in Deep Learning Inversion of Transient Electromagnetic Data                  | Zhu, Y., Li, J., Liu, C., Wang, Y., Tan, T.                                                                                                        |
| 10P01 | Recognizing source effects in long-period geomagnetic depth sounding data                                                         | Neska, A.                                                                                                                                          |
| 10P02 | Equivalent source model for New Zealand and the vicinity                                                                          | Kruglyakov, M., Rodger, C., Malone-Leigh, J., Mac Manus, D., Brundell, J., Petersen, T., Heise, W., Bertrand, E., Dalzell, M.,                     |
| 10P03 | Exploring Apparent Resistivity Constraints from InSight Surface Magnetic Observations on Mars                                     | Pei-Ying Patty Lin, Chen-Hsiang Alex Hung                                                                                                          |
| 10P04 | Fitting external source field with empirical corrections for 3D Earth conductivity                                                | G. D. Egbert                                                                                                                                       |
| 10P05 | Realistic Models of External Source Fields                                                                                        | G.D. Egbert, P. Alken, A. Maute, G. Lu                                                                                                             |
| 10P06 | Motional induction in the subsurface oceans of Europa and Ganymede: Expectations from Juice and Europa Clipper missions           | Šachl, L., Kvorka, J., Čadež, O., Velínský, J., Witasse, O., Vallat, C.                                                                            |
| 10P08 | Anomalously large coastal effect at St. John's (STJ) geomagnetic observatory                                                      | I.I. Rokityansky, A.V. Tereshyn                                                                                                                    |
| 10P09 | Influence of Seawater and External Source Geometry on Geomagnetic Depth Sounding                                                  | Lin, D.J., Baba, K., Uyeshima, M.                                                                                                                  |

## Poster 7 — Friday 7 Aug, 11:00–12:00

Boards: 3P01-3P38

| ID | Title | Authors |
|----|-------|---------|
|----|-------|---------|





|       |                                                                                                                                                                           |                                                                                                                                                              |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 03P01 | Along-Strike Variations in Shallow Forearc Structure Revealed by Electromagnetic Data Across the Alaska-Aleutian Subduction Zone                                          | Li, Y., Naif, S., Key, K., Constable, S., Evans, R. L., Shillington, D. J., Bécel, A., Cordell, D.                                                           |
| 03P02 | 2D Magnetotelluric Inversions From Integrated Land and Salton Sea MT Data                                                                                                 | Feightner, H., Constable, S., Miller, A.R., Naif, S., Tokmakoff, L., Share, P.-E., Peacock, J.                                                               |
| 03P03 | Regional Results from the Magnetotelluric Investigation of the Salton Trough (MIST) Project using 3D inversion                                                            | Miller, A.R., Naif, S., Share, P.-E., Tokmakoff, L., Constable, S., Feightner, H., Peacock, J.                                                               |
| 03P04 | Magnetotelluric Imaging of Conductivity Structure Across the Northern Salton Trough: Implications for Fault Architecture and Fluid Pathways                               | Tokmakoff, L., Share, P., Naif, S., Miller, A., Constable, S., Feightner, H., and Peacock, J.                                                                |
| 03P06 | Amphibious magnetotelluric investigations of the Gulf of Tehuantepec subduction zone, southern Mexico.                                                                    | Hernández-Aburto Y., Ruiz-Aguilar D., Husker A. , Constable S., Arango-Galván C. , Romo-Jones J.M., and Benevides A.                                         |
| 03P07 | Mapping Subduction Zone Fluids Beneath Costa Rica: the perica-LIGERA MT Array                                                                                             | Azevedo, O., Naif, S., Cordell, D.                                                                                                                           |
| 03P09 | Constraining the tectonic evolution of the eastern Paraná Magmatic Province through 3-D modeling of magnetotelluric data                                                  | Martins, L. A. and Bologna, M. S.                                                                                                                            |
| 03P10 | Lithospheric Structure of the Western Paraná Basin (Brazil) from Joint Inversion of Magnetotelluric and Gravity Data                                                      | Awodumila, D.O., Bologna, M. S., Chaves, C.A.                                                                                                                |
| 03P11 | Architecture of the lithosphere beneath the Paraná-Etendeka Large Igneous Province in central-south Brazil and northernmost Argentina constrained by electromagnetic data | Bologna, M. S., Dragone, G. N., Giménez, M. E, Alvarez, O, Lince Klinger, F., Correa-Otto, S.                                                                |
| 03P12 | 3D Magnetotelluric Inversion of the Iberian Central System                                                                                                                | Giménez-Berenguer, C., Ledo, J., Piña-Varas, P., Queralt, P.                                                                                                 |
| 03P13 | Magnetotelluric Imaging of the Atlas Mountains, Morocco                                                                                                                   | Butler, I., Heinson, G., Kay, B., Boren, G., Boumehdi, M., Amrouch, K.                                                                                       |
| 03P15 | Hydro-Mechanical Control of Seismogenesis and Fluid Migration in the Beni-Ilmane Fold-and-Thrust Belt (Algeria): Insights from Magnetotelluric Imaging                    | Melaim, M.A., Boukhalifa, Z., Abacha, I., Comeau, M.J., Bouzid, A., Bendjama, H., Tikhamarine, E.M., Boulahia, O.                                            |
| 03P16 | Studying the Wiborg Rapakivi Batholith in SE Finland                                                                                                                      | Patzer, C., Mishra, P., Kamm, J.                                                                                                                             |
| 03P18 | The subsurface structure of salt diapirs revealed with electrical resistivity models in the Shurab area, Central Iran                                                     | Filbandi Kashkouli, M., Comeau, M.J.                                                                                                                         |
| 03P20 | Three-Dimensional Magnetotelluric Imaging of the Resistivity Structure beneath the Western Arunachal Himalayan Foreland in India                                          | Bori, N.K., Lozovsky, I.N., Pathak, M.K., Walia, Devesh                                                                                                      |
| 03P21 | The Uplift Mechanism of the Eastern Himalayan Syntaxis                                                                                                                    | Wang Gang, Fang Hui, Pei Fagen                                                                                                                               |
| 03P22 | Glacier unloading triggers annual earthquakes through a weak crustal column in southeastern Tibet                                                                         | Tao Ye, Shunping Pei, Xiaobin Chen and Yan Zhan                                                                                                              |
| 03P23 | Two-dimensional lithospheric electrical structure and implications for the geodynamic process of the Western Kunlun Orogen                                                | Zhiguo An, Munirdin Tohti, Wenjiao Xiao and Qingyun Di                                                                                                       |
| 03P24 | 3-D Magnetotelluric Imaging of the Southern Central Yunnan Sub-block: Implications for Deep Material Transport and Fault-Controlled Melt Ascent                           | Ren Z., Di Q., An Z., Yun Z.                                                                                                                                 |
| 03P25 | Segmented Lithospheric Modification and Differential Metallogenesis in the Mid-dle-Lower Yangtze River Metallogenic Belt: Constraints from Magnetotelluric Array Data     | Zhaoyuan, K., Gaofeng, Y., Wenbo, W, Sheng, J., Yiwu, Z.                                                                                                     |
| 03P26 | Fossil Bidirectional Subduction System beneath the Beishan Orogen Revealed by Magnetotelluric Imaging                                                                     | L. Zhou, L. Zhang, M. J. Comeau, M. Becken, S. Jin                                                                                                           |
| 03P27 | 3-D electrical resistivity model of central-western Mongolia: Constraining lithospheric properties and architecture                                                       | Rigaud, R., Comeau, M.J., Erdenechimeg, B., Kruglyakov, M., Kuvshinov, A., Becken, M., Plett, J., Treppke, H., Shoovdor, T., Sodnomsambuu, D., Chimed, O.    |
| 03P28 | Constraining the 3-D electrical resistivity structure beneath the Khovsgol and Darkhad region, northern Mongolia                                                          | R. Rigaud, R., Comeau, M.J., Erdenechimeg, B., Kruglyakov, M., Kuvshinov, A., Becken, M., Plett, J., Treppke, H., Shoovdor, T., Sodnomsambuu, D., Chimed, O. |
| 03P29 | New MT data and first inversion models from the Altai mountains in western Mongolia                                                                                       | Becken, M., Plett, J., Treppke, H., Comeau, M. J., Batmagnai, E., Shoovdor, T., Sangidalai, M., Chimed, O., Kuvshinov, A.                                    |



|       |                                                                                                                                                                      |                                                                                                  |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| 03P30 | Carbonatite melt at the base of the Gawler Craton, Australia: New insights from 3D MT anisotropic inversion                                                          | Baker, D., Heinson, G.                                                                           |
| 03P31 | New AusLAMP insights on the lithospheric architecture of the North Australian Craton                                                                                 | Qiu F., Schnepf N. R., Heinson G., Boren G.                                                      |
| 03P32 | Magnetotelluric Measurements in the Marlborough Fault Zone                                                                                                           | Wiebke Heise, Ted Bertrand, Alex Caldwell, Kristin Pratscher, Pascal Semper                      |
| 03P33 | Crustal compression and thickening appears to produce lower crustal conductors.                                                                                      | Selway, K., Avilés-Esquivel, T.                                                                  |
| 03P34 | Tuning MT Inversion Model Parameters to Build Toward a Common Earth Model                                                                                            | Musila, M., Bedrosian, P.                                                                        |
| 03P35 | Graphite-assisted strain localisation as a control on intracontinental earthquake distribution                                                                       | Gubina A., Heinson G., Daruso R., Margiono R., Carter S., Boren G.                               |
| 03P36 | Graphitic lower crust from mantle-derived carbon-rich fluids and melts in a wide-rift Proterozoic back-arc setting                                                   | Margiono, R., Heinson, G.                                                                        |
| 03P37 | A Joint Framework for Collocated Ultra-Long-Period Magnetotelluric and Geomagnetic Depth Sounding: Probing Earth's Electrical Conductivity from Crust to Deep Mantle | Li, X., Chen, C., Chen, Y., Kuvshinov, A., Deng, Y., Zhang, Z., Zhu, S.                          |
| 03P38 | Lithospheric Resistivity Structures Across the Epicenters of the 2023 Türkiye Earthquake Doublet                                                                     | Avşar, Ü., Özyıldırım, Ö., Li, X., Deng, Y., Karcioğlu, G., Zhang, Z., Yıldız, A., and Bağcı, M. |

## Poster 8 — Friday 7 Aug, 16:15–17:15

Boards: 4P01-4P24 ; 8P01-8P27

| ID    | Title                                                                                                                                               | Authors                                                                                                                                               |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| 04P01 | Addressing Anthropogenic Noise and Electrical Anisotropy Hints in Magnetotelluric Data from the Annecy Area (French Pre-Alps)                       | Riba-Pereyra, C., Byrdina, S., Martí, A., Castro, C., Charroy, J., Kong, W., Rath, V., Junge, A., Metral, L., Got, J-L.                               |
| 04P02 | Preliminary results from new magnetotelluric data in the Cerdanya Basin (NE Spain)                                                                  | A. Martí, M. Oliva, C. Giménez-Berenguer, P. Queralt, A. Marcuello, P. Piña-Varas, J. Ledo, G. Alias, O. Falivene, A. Gabàs, F. Bellmunt, G. Mitjanas |
| 04P03 | Preliminary 3D resistivity inversion model imaging geothermal reservoir: The Valles Basin case                                                      | Marco A. Oliva-Gutierrez, Perla Piña-Varas, Pilar Queralt, Juan Jose Ledo, Anna Marti, Gemma Mitjanas, and Alex Marcuello                             |
| 04P04 | A 3D Inversion of Legacy Magnetotelluric Data at the Amatitlán Geothermal Field, Guatemala                                                          | Reynolds, Z.                                                                                                                                          |
| 04P05 | The Map Tells the Story: Magnetotelluric Measurements in the Taupo Volcanic Zone                                                                    | Pratscher K., Bertrand T., Caldwell TG., Heise W., Caldwell A., Gard H., Brakenrig T., Hart R.                                                        |
| 04P06 | Persistent Mid-crustal Melt Reservoirs Power Geothermal Systems in Thickened Continental Crust                                                      | Lei, L., Dong, H., Comeau, M.J., Liu, J., Wei, W., Jin, S.                                                                                            |
| 04P07 | Interpretation of anomalous magnetotelluric phase data: Implications for geothermal structural mapping in the Northwestern Himalayas, Ladakh, India | Durga, V., Patro, P K.,                                                                                                                               |
| 04P08 | Surface-to-borehole controlled-source electromagnetics for monitoring a deep geothermal aquifer – synthetic feasibility studies                     | Rulff, P., Drijkoningen, G., Slob, E.                                                                                                                 |
| 04P09 | Toward the first conductivity model of Oldoinyo Lengai volcano: preliminary results from a pilot MT survey                                          | Diaz, M. K., Junge, A., Thiede, A., Castro, C., Becken, M., Massawe, R., Gidna, A.                                                                    |
| 04P10 | Broadband Magnetotelluric Survey for Unveiling the Magma Reservoir Beneath Mount Asama, Central Japan                                               | Limbong, G., Koyama, T., Huang, Z., Ikezawa, S., Tsuji, H., Kanda, W.                                                                                 |
| 04P11 | Establishment of a plume-drive magmatic system: Insights from multi-physics imaging at the Lana'i Island, Hawaii                                    | Graham Hill, Alexander Grayver, Amir Haroon, Erin Wallin, Eric Roots, Nicole Lautze                                                                   |
| 04P12 | Imaging the Magmatic System of Maunga Ruapehu, New Zealand, with MT                                                                                 | Semper, P., Bannister, S., Bertrand, E. A., Caldwell, T. G., Heise, W., Kilgour, G., Scheunert, M. and Spitzer, K.                                    |



|       |                                                                                                                                                                                                            |                                                                                                                                                                             |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 04P13 | Role of a shallow alteration layer for phreatic eruption: Insights from the electrical resistivity structure beneath Zao Volcano, NE Japan                                                                 | Ichiki, M., Kanda, W., Kaida, T., Ushioda, M., Seki, K., Ogawa, Y., Miura, S., Yamamoto, M., Morita, Y., Uyeshima, M.                                                       |
| 04P14 | Subsurface Resistivity Imaging of Tangkuban Parahu Volcano: A Case Study on Magmatic Fluid Migration Pathways Based on Magnetotelluric Data                                                                | I. Hasbillah, Nurhasan, M. A. Rahmadini and M. Z. S. Mutaqin                                                                                                                |
| 04P15 | Imaging, characterizing and monitoring the volcanic plumbing system of Montagne Pelée using experimental petrophysics and magnetotellurics                                                                 | Pierre Wawrzyniak, Benjamin François, Simon Vedrine, Caroline Martel, Fabrice Gaillard, Juan Andujar, Benoit Vitecoq                                                        |
| 04P16 | 3-D Magnetotelluric images of the hydrothermal system beneath Montserrat                                                                                                                                   | Redanz, A., Unsworth, M., Williamson, A., Ryan, G. A., Williams, B., Blundy, J., Kendall, J. M., Killingbeck, S.                                                            |
| 04P17 | Magnetotelluric constraints on Deception Island volcano, Antarctica: ocean-controlled responses and a baseline for volcanic monitoring                                                                     | Castro, C., González-Castillo, L., Martínez-Moreno, F., Asier Madarieta-Txurruka, Roots, E., Hill, G., Grayver, A., Kiyani, D., Hering, P., Galindo-Zaldívar, J., Junge, A. |
| 04P18 | Subsurface architecture and mantle-linked lithospheric pathways beneath the Tazoult Diapir, High Atlas, Morocco                                                                                            | Castro, C., Hill, G., Závada, P., Martín-Martín, J.D., Kováčiková, S., El Gettafi, M., Roots, E., Beranek, R., Mrlina, J., Himi, M., Kiyani, D., Amaguar, F.                |
| 04P19 | Preliminary constraints from magnetotelluric data on Long Valley-Mono Lake volcanic system, Eastern California, USA                                                                                        | Wei, Y., Song, H., Moorkamp, M., Peacock, J.                                                                                                                                |
| 04P20 | Sub-Accretion of Spreading Ridges: Example from Western California                                                                                                                                         | Peacock, J.R., Burgess, S.D., Blatter, D., and Melosh, B.                                                                                                                   |
| 04P21 | Crust-mantle magma plumbing system and deep dynamic mechanisms of intraplate plateau volcanism at the stagnant slab front: high-resolution MT imaging of the Datong Volcanic Field                         | Gaofeng YE, Yuchen HAO, Sheng JIN                                                                                                                                           |
| 04P23 | The structure of a continental intraplate volcanic system and controls from shear zones: Insights into the central Hoggar Cenozoic volcanic province, Northwest Africa, from electrical resistivity images | Boukhalfa, Z., Benhallou, A.Z., Comeau, M.J., Bouzid, A., Bendaoud, A., Deramchi, A.                                                                                        |
| 04P24 | 3-D Magnetotelluric Imaging of the multi-level Deep Magmatic-hydrothermal System beneath the Leiqiong Volcanic Field in South China                                                                        | Zhou, H., Li, X., Deng, Y., Cheng, Y., Chen, Y., Zhang, J., Kuvshinov, A.                                                                                                   |
| 08P01 | Integrated Electromagnetic, Self-Potential and Magnetic Investigations of Seafloor Massive Sulphide Systems at the Central and Southeast Indian Ridge                                                      | Müller, H., Schwalenberg, K., Barckhausen, U.                                                                                                                               |
| 08P03 | The Nene System: A Surface Towed Marine EM Platform for Coastal Environments                                                                                                                               | Kannberg, P., Haroon, A.                                                                                                                                                    |
| 08P04 | A joint electromagnetic and seismic study of a rifted margin                                                                                                                                               | Constable, S., Bayrakci, G., Minshull, T., Ivey, K.                                                                                                                         |
| 08P05 | Shallow and deep conductive anomalies revealed from 3D marine magnetotelluric data in the northern Gulf of California Rift                                                                                 | Thalia Avilés-Esquivel, José M. Romo-Jones, Favio Cruz-Hernández, Enrique Gómez-Treviño, Steven Constable and Mario González-Escobar, Raúl Castro.                          |
| 08P06 | Exploring the three-dimensional lithospheric structure of the equatorial mid-Atlantic Ridge                                                                                                                | Montiel-Álvarez, A.M., Wang, S., Constable, S.                                                                                                                              |
| 08P07 | Origin of Oceanic Gravity Rolls Revealed by Marine Magnetotelluric Data                                                                                                                                    | Joergensen, J., Constable, S., Sandwell, D.                                                                                                                                 |
| 08P08 | East Pacific Imaging Cruise: A joint MT-seismic survey of the Cocos oceanic plate                                                                                                                          | Naif, S., Singh, A.P., Gaherty, J., Porter, R.                                                                                                                              |
| 08P09 | Electromagnetic Observations on Oldest Pacific: Preliminary MT Responses from the Oldest-2 Array                                                                                                           | Hung, C.-H. A., Lin, P.-Y. P., Baba, K., Utada, H.                                                                                                                          |
| 08P10 | Marine magnetotelluric experiment to study oceanic mantle viscosity                                                                                                                                        | Baba, K., Moorkamp, M., Reek, K., Tada, N., Matsuno, T., Ichihara, H., Jiang, F., Jegen, M., Lin, D.J., HEB Research Group                                                  |
| 08P11 | Electrical Structures of the Deep Crust and Upper Mantle in the Central Segment of the Kyushu-Palau Ridge with the marine magnetotelluric data                                                             | QIN Linjiang, LI Gang,, XU Hao, GAO Lubin                                                                                                                                   |
| 08P12 | The lithosphere-asthenosphere system beneath the West Philippine Basin, constrained from an anisotropic 1-D electrical resistivity structure                                                               | Matsuno, T., Baba, K.                                                                                                                                                       |



|       |                                                                                                                                      |                                                                                                                              |
|-------|--------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| 08P13 | Imaging Hydrothermal Alteration and Venting at Whakaari/White Island Using Marine Controlled-Source Electromagnetics                 | King, Roslynn B., Miller, Craig, de Ronde, Cornel                                                                            |
| 08P14 | Marine Seep Characterization Using Electromagnetic Methods                                                                           | McGrath, A., King, R., Miller, C.                                                                                            |
| 08P15 | Analyzing Geomagnetic Variations at a Submarine Volcano North of New Zealand                                                         | Nienhaus, H., Evans, R., Sherman, D., Henstock, T., de Ronde, C. E. J., Minshull, T. A.                                      |
| 08P16 | DEEPMAYMT: Marine magnetotelluric investigation for a submarine volcanic system offshore Mayotte                                     | Matsuno, T., Seama, N., Wawrzyniak, P., D'Eu, J.-F., Sugioka, H., Tarits, P., Doi, H., Sano, M.                              |
| 08P17 | Electrical conductivity structure of the northern Hikurangi incoming plate volcanoclastic sequence                                   | Parker, E., Naif, S., Gase, A., Gulick, S., Sherman, D.                                                                      |
| 08P18 | Along-Strike Variations in Fluid Distribution and Slip Behavior at the Hikurangi Subduction Zone Revealed by Marine CSEM             | Fluegel, B., Evans, R., Naif, S.                                                                                             |
| 08P19 | Magnetotelluric constraints on the seismogenesis of the North Anatolian Fault beneath the Marmara Sea, Türkiye                       | Kaya-Eken, T., Ogawa, Y., Usui, Y., Kasaya, T., Tunçer, M. K., Honkura, Y., Oshiman, N., Matsushima, M., Siripunvaraporn, W. |
| 08P20 | Satellite observations of annual variations in the ocean-induced magnetic field from the tropical oceans                             | Finlay, C.C., Velínský, J., Kloss, C., Kureš, O., Blangsbøll, R.M., Ucekajová, V.                                            |
| 08P21 | Characteristics of the M2 tidal component of the ocean-bottom electromagnetic field in the northwestern Pacific                      | Sei Ito, Tetsuo Matsuno, Nobukazu Seama, Hiroko Sugioka, Takuto Minami                                                       |
| 08P22 | Three-dimensional resistivity structure beneath the Lau Basin inferred from seafloor observations of tidally induced magnetic fields | Minami, T., Nakaya, T., Hoshino, S., Ito, S., Matsuno, T., Chave, A. D., Saynisch-Wagner, J., Sugioka, H., Seama, N.         |
| 08P23 | Resistivity structure beneath Kozushima, Izu-Bonin Arc, Japan, inferred from tsunami-generated electric field variations             | Takebayashi, T., Minami, T., Uyeshima, M.                                                                                    |
| 08P24 | IndexSim: towards 3D modelling and inversion of marine central-loop frequency domain EM data                                         | Nazari, S., Rochlitz, R., Müller, H.                                                                                         |
| 08P27 | Marine controlled-source electromagnetic study of the Trans-Atlantic Geotraverse hydrothermal field                                  | Chen, C., Minshull, T. A., Bayrakci, G., Hölz, S., Gehrmann, R.A.S., Park, J.                                                |



# Notes



# Notes





# Notes



# Notes



# Notes

