

Participant and Authors Information

GELMON 2017

“Fourth International Workshop on Geoelectrical Monitoring”

November 22nd to November 24th, 2017



Supported by:

 Geological Survey of Austria

ÖAW
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CONVENTION BUREAU

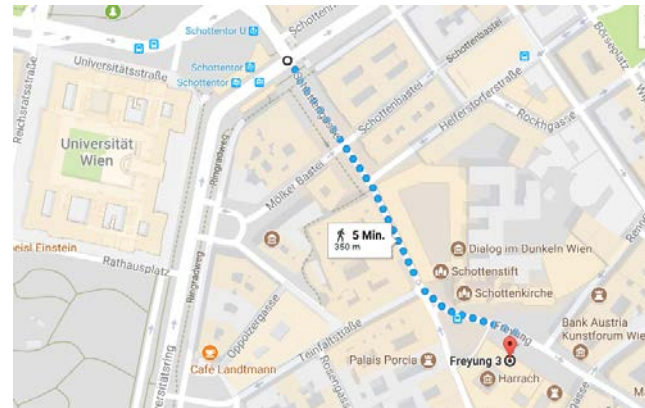
bmwfw
Federal Ministry of
Science, Research and Economy



AGS
Österreichische Geophysikalische Gesellschaft
Austrian Geophysical Society

 KIGAM
Korea Institute of Geoscience
and Mineral Resources

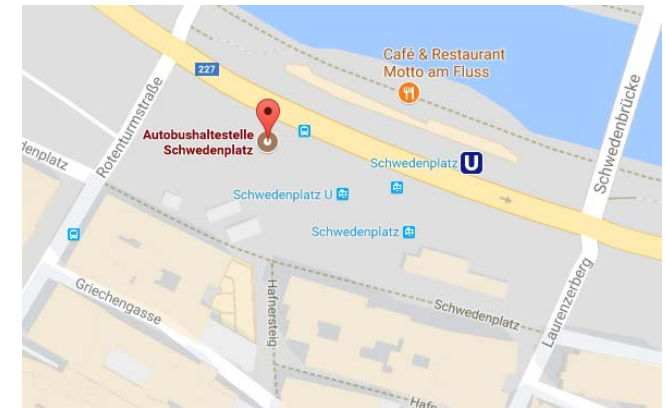
The venue: The meeting will be held in the Presentation Hall of the BMWFW (Federal Ministry of Science, Research and Economy) at Freyung 3 in the historical first district of Vienna. It is about 5 minutes walking distance either from Metro line U2 – Schottentor or U3 – Herrengasse.



Authors: This year’s GELMON will be organized in a new format: **Only keynote talks** are held as oral presentations, all other contributions are scheduled as 2-minute short + poster presentation.

Please prepare 2 Powerpoint slides for the short presentation and a Poster (max. DIN A0 Portrait: 84,1 x 118,9 cm). Please find your timeslot in the attached programme and deliver your presentation in good time at the registration desk.

Dinner: New location! This year’s conference dinner will take place at the “Lusthaus”, a former hunting lodge of the Austrian Emperor. As the location is out of the city centre, a shuttlebus transfer is arranged from the bus stop “Schwedenplatz” (accessible via U1 and U4). Departure time from “Schwedenplatz” is 19:00.



Accommodation: If you did not arrange accommodation yet, be quick! Good overview of Vienna hotels: www.booking.com. In the historic 1st district you can find a variety of high-class hotels, in the 2nd district, especially the area between the Danube canal, “Augarten” and “Praterstern”, you can find a range of more casual hotels. The “Meininger Hotel Sissi” for instance offers good value for money.

Wednesday		
Timeslot	Presenter	
10:00	Registration	
11:00	Robert Supper Wolfgang Lenhardt	Workshop opening
11:30	President of the Austrian Geophysical Society	
11:30	Yushik Han Yonsoo Ji Heejeung Sohn Greta Tresoldi Paul Wilkinson 11:45 Ki-Cheong Yoo	2-minute shortpresentations
11:45	Postersession and Coffee	
12:30	Lunchbreak	
14:00	Torleif Dahlin	Keynote lecture
14:30	In-Ky Cho Torleif Dahlin Eunmi Kim	2-minute shortpresentations
14:40	Yoshihiro Yamashita	
14:40	Postersession and Coffee	
15:30	Panagiotis Tsourlos	Keynote lecture
16:00	Sung Oh Cho Aristeidis Nivorlis Thomas Jouen Samgyu Park	2-minute shortpresentations
16:10	Matteo Rossi	
16:10	Adrian Flores-Orozco	Keynote lecture
16:40	Postersession and Coffee	
17:30	Icebreaker reception	

Thursday		
Timeslot	Presenter	
09:00	Andreas Kemna	Keynote lecture
09:30	Mohammad Farzamian Coline Mollaret Florian Wagner	2-minute shortpresentations
09:40	Stefan Pfeiler	
09:40	Jonathan Chambers	Keynote lecture
10:10	Johannes Grossmann Jim Whiteley	2-minute shortpresentations
10:20	David Ottowitz	
10:20	Postersession and Coffee	
11:00	Jonathan Chambers Azadeh Hojat Cornelia Inauen Thomas Jouen Marios Karaoulis Johanna Ochs Hee Hwan	2-minute shortpresentations
11:15	Shinichi Takakura	
11:15	Postersession and Coffee	
12:00	Lunchbreak	
14:00	Frederic Nguyen	Keynote lecture
14:30	Giorgio Cassiani	Keynote lecture
15:00	Michai Cimpoiasu Remi Clement Adrien Dimech Michael Grinat	2-minute shortpresentations
15:10	Henine Hocine	
15:10	Postersession and Coffee	
16:00	Maximilian Weigand	Keynote lecture
16:30	Sarah Garre Sathynarayan Rao Shari van Treeck	2-minute shortpresentations
16:45	Cornelia Schmidt-Hattenberger Tobias Nickschick	2-minute shortpresentations
16:45	Christian Veress	
16:45	Postersession and Coffee	
19:00	Bustransfer to the Dinner from Schwedenplatz (Downtown)	
19:30	Conference Dinner at the "Lusthaus"	
00:00	Shuttlebusservice "Lusthaus" - Schwedenplatz (Downtown)	

Friday		
Timeslot	Presenter	
10:00	Thomas Günther	Keynote lecture
10:30	Myeong-Jong Yi	Keynote lecture
11:00	Johanna Ochs Yonghyun Chung Hangilro Jang Luke Sibbett Maximilian Weigand Paul Wilkinson	2-minute shortpresentations
11:20	Paul Wilkinson	
11:20	Postersession and Lunch	
12:30	Viktoria Haider	Keynote lecture
12:45	Robert Supper	Discussion and closing remarks
13:15		



Session	Presenting Author	Title
Technical Innovation and Lab	Jonathan Chambers	Towards a geophysical system for the remote autonomous monitoring of the near surface
Technical Innovation and Lab	Azadeh Hojat	Time-lapse ERT measurements to monitor rainfall triggered landslides at the laboratory scale
Technical Innovation and Lab	Cornelia Inauen	4D ERT monitoring of subsurface water pipe leakage during a controlled field experiment
Technical Innovation and Lab	Thomas Jouen	Geoelectrical monitoring during waste biodegradation process at laboratory scale
Technical Innovation and Lab	Marios Karaoulis	Towards a real-time 4D Electrical Resistivity Tomography
Technical Innovation and Lab	Johanna Ochs	Considerations regarding surface to borehole ERT
Technical Innovation and Lab	Hee Hwan	Development of new underground exploration method
Technical Innovation and Lab	Shinichi Takakura	High-speed geoelectrical monitoring of artificial rain experiments at a slope using a large-scale rainfall simulator
Permafrost - keynote talk	Andreas Kemna	Use of geoelectrical monitoring methods for characterizing thermal state, ice content and water flow in permafrost environments
Permafrost	Mohammad Farzaman	Application of time-lapse ERT in active layer monitoring at Crater Lake, Deception Island, Antarctica
Permafrost	Coline Mollaret	Joint inversion of electric and seismic data applied to permafrost monitoring
Permafrost	Stefan Pfeiler	The permafrost monitoring sites Hoher Sonnblick and Kitzsteinhorn
Permafrost	Florian Wagner	Identification of outliers, electrode effects and process dynamics in electrical self-potential monitoring data
Open Session	Cornelia Schmidt-Hattenberger	Demonstration of applicability of geoelectrical imaging as monitoring tool for the complete life-cycle of a CO2 storage reservoir
Open Session	Tobias Nickschick	Geoelectrical investigations at a planned ICDP drill site in the geodynamic active Eger Rift to understand subsurface CO2 migration processes
Open Session	Christian Veress	Integrating ERT and other near-surface geophysical techniques for the investigation of a maar structure near Neualbenreuth
Landslides - keynote talk	Jonathan Chambers	Geophysical characterization, monitoring and early warning of slope failure a review of methodological developments at the Hollin Hill landslide observatory
Landslides	Johannes Grossmann	Integrating tachymetric surveying and ERT measurements to construct the sliding plane of an active landslide near Maria Eck monastery
Landslides	David Ottowitz	Geoelectrical and geotechnical monitoring on a landslide in Wolfsegg am Hausruck, Austria
Landslides	Jim Whiteley	Integrated monitoring of an active landslide in Lias Group Mudrocks
Hydrology - keynote talk	Giorgio Cassiani	Characterization and monitoring of the riparian and hyporheic zones
Hydrology - keynote talk	Frederic Nguyen	Recent developments using ERT-derived temperature for monitoring and characterizing aquifers
Hydrology	Michai Cimpoiasu	Joint assessment of soil hydraulic properties by constraining geoelectrical tom
Hydrology	Remi Clement	Infiltration of treated wastewater in a soil-based constructed wetland
Hydrology	Adrien Dimech	Hydrogeophysical monitoring of water infiltration in an experimental waste rock pile using 3D time-lapse Electrical Resistivity Tomography
Hydrology	Michael Grinat	Long-time resistivity monitoring of a freshwatersaltwater transition zone using vertical electrode systems
Hydrology	Henine Hocine	Spatialization of subsurface properties and states using geophysical and geostatistical methods
Geotechnics	Yushik Han	A Study on the Methods for Detection of Underground Cavity
Geotechnics	Yonsoo Ji	Assessment of soft ground at tidal reclaimed land by integrated analysis of geo
Geotechnics	Heejeung Sohn	Preliminary evaluation of ground collapse from sandy soil with varying volumetric water content in a soil chamber
Geotechnics	Greta Tresoldi	Experimenting a permanent geoelectrical monitoring system for stability assessment of levees
Geotechnics	Paul Wilkinson	Monitoring of infrastructure slopes an example of an operational railway cutting
Geotechnics	Ki-Cheong Yoo	A Case Study of the Ground Collapse due to Excavation Using Non-Destructive Testing
Dam Monitoring - keynote talk	Torleif Dahlin	Monitoring of embankment dams and waste dumps
Dam Monitoring	In-Ky Cho	Resistivity monitoring for dam safety inspection in Korea
Dam Monitoring	Torleif Dahlin	Long-term ERT monitoring of embankment dams in Sweden
Dam Monitoring	Eunmi Kim	Temperature effect in resistivity monitoring in embankment dams
Dam Monitoring	Yoshihiro Yamashita	3D ERT monitoring during dyke overtopping experiment using multi-

Contamination - keynote talk	Adrian Flores-Orozco	Electrical monitoring of nano- and micro-scale particle injections for in-situ groundwater remediation
Contamination - keynote talk	Panagiotis Tsourlos	ERT time-lapse monitoring of a full-scale coal tar remediation
Contamination	Sung Oh Cho	An interpretation of resistivity monitoring data obtained in Geumsan landfill site
Contamination	Thomas Jouen	Geoelectrical monitoring in landfill bioreactor to study waste mass biodegradation behavior
Contamination	Aristeidis Nivorlis	The monitoring system of Alingsas
Contamination	Samgyu Park	Resistivity monitoring for leachate detection in a livestock disposal site
Contamination	Matteo Rossi	Characterisation and monitoring of in-situ remediation of chlorinated hydrocarbon contamination using an interdisciplinary approach
Contamination	Panagiotis Tsourlos	ERT time-lapse monitoring of a full-scale coal tar remediation
Bio-geo interaction - keynote talk	Maximilian Weigand	Monitoring crop root systems using electrical impedance tomography
Bio-geo interaction	Sarah Garre	Agroforestry in temperate regions, where does the water go? Electrical resistivity tomography as a tools to help us find out
Bio-geo interaction	Sathynarayan Rao	A forward model for electrical conduction in soil-root continuum: A virtual rhizotron study
Bio-geo interaction	Shari van Treeck	Developing an electrode design for EIT field measurements on crop root systems
Advances in Inversion - keynote talk	Thomas Günther	Advanced ERT inversion strategies with BERT & pyGIMLi
Advances in Inversion - keynote talk	Myeong-Jong Yi	Data Processing and 4D Inversion of ERT monitoring data
Advances in Inversion	Johanna Ochs	Effects of near surface resistivity changes on time lapse ERT inversion
Advances in Inversion	Yonghyun Chung	3D resistivity inversion using a nonlinear partial derivative
Advances in Inversion	Hangilro Jang	Interpretation of resistivity data based on inversion with structural constraints for the detection of cavities during construction
Advances in Inversion	Luke Sibbett	Electrical Resistivity Tomography regularisation for piecewise smooth models
Advances in Inversion	Maximilian Weigand	Towards unified and reproducible processing of geoelectrical data
Advances in Inversion	Paul Wilkinson	4D inversion for automated near real-time ERT monitoring applications
Advances in Inversion	Paul Wilkinson	Implementing positivity constraints in 4-D resistivity time-lapse inversion