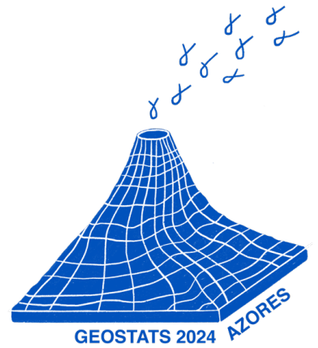
12th International Geostatistics Congress - 2 to 6 September 2024 - Ponta Delgada, Azores, Portugal



Tuesday, September 3rd

20 min slots starting at:	Auditorium South	Main Auditorium	Auditorium North	Room 1
9:00		**Opening Session**		
9:20		**Keynote Talk** "Data analytics and machine learning for energy engineering and geoscience", **Michael Pyrcz**		
9:40				
10:00		"Enhanced rock type classification by combining machine learning and geostatistical simulation", **Nadia Mery**, Xavier Emery, Mohammad Maleki, Nasser Madani		
10:20		"Updating Simulated Multi-Attribute Geological and Geometallurgical Orebody Models Using High-Order Statistics Considering Production Data of Multiple Support Scales", **Liam Findlay**, Roussos Dimitrakopoulos		
10:40		"Structurally Controlled Simulation of Ore Bodies using Automated Core Logging Data", **David Machuca-Mory**, Enware Lebrun, Hayden Eyers, Antoine Caté		
11:00	**Coffee Break**			
11:20				
11:40	"Spatial analysis of soil diffuse degassing (222Rn and CO2) at Furnas Volcano (Azores): from monitoring to land-use planning", **Catarina Silva**, Fátima Viveiros, Teresa Ferreira, Patrick Allard	"Fortune favours the bold: a case study in using geostatistics where it is deemed to be unusable", **Alan Lambden**, Mo Srivastava	"On the influence of the correlation path in incremental multi-well stratigraphic correlation", **Guillaume Caumon**, Christophe Antoine	"Geostatistics and data assimilation applied to the management of mining induced ground movement prediction models – recent developments",**Jörg Benndorf**
12:00	"Risk Analysis of Pesticide Contamination in the Valencia Plain Using an Indicator Approach to Model Local Uncertainty", María Claver, Eduardo Cassiraga, **Javier Rodrigo Ilarri**	"Ensemble Smoother with Multiple Data Assimilation of Tracer and Electrical Resistivity Tomography data for subsurface modelling: a laboratory test case", **Camilla Fagandini**, Valeria Todaro, Leonardo Azevedo, J. Jaime Gómez-Hernández, Andrea Zanini	"Showdown in MPS: can position sampling takeover value sampling?", **Matheus Gravey**	"Conditional Simulation for Stochastic Production Scheduling of Open Pit Mines", **Steven Hoerger**, Kadri Dagdelen
12:20	"Geostatistical Characterization of Climate Extremes Dynamics: The Drought Phenomenon", **Miguel Gomes**, Ana Cristina Meira, Rita Durão, Amílcar Soares	"Sequential Ensemble Kalman Filter for seismic waveform inversion", **Nina Spremic**, Jo Eidsvik, Espen B. Raknes	"Bayesian conditioning in a rule-based facies model", **Jacob Skauvold**	"Mineral Resource Disclosure with Probabilistic Models", **Ryan M. Barnett**, Sean Horan, Brandon Wilson, Jared L. Deutsch, Clayton V. Deutsch
12:40	"Definition of Rainfall-Triggered Landslide Thresholds Using the Generalized Extreme Value (GEV) Distribution for Risk Mitigation", **Rui Marques**, Rui Fagundes Silva, José Luís Zêzere	"Iterative stochastic seismic inversion method using GANs with Spatially Adaptive Normalization", **Roberto Miele**, Leonardo Azevedo	"Predefining connectivity in geostatistical models using the plurigaussian method", **Tom Manzocchi**	"Orebody and mine planning assessment based on alternative recoverable and non-recoverable resource modelling techniques", **Winfred Assibey-Bonsu**, Matthew Aboagye, Kwame Appau, Charles Muller
13:00	**Lunch**			
13:20				
13:40				
14:00	"Analysis of distributed acoustic sensing data for urban space-time monitoring", **Jo Eidsvik**, Robin Rørstadbotnen	"Simulating structural geomodels with deep generative adversarial networks constrained by geological orientations", **Charlie Garayt**, Nicolas Dessassis, Samy Bruneau, Pierre-Marie Gibert, Jean Langanay, Thomas Romary		
14:20	"Trend analysis of daytime and nighttime LST over the Iberian Peninsula", **Sara Arribas Manch**, Martín Peretó-Roselló, Raquel Niclós Corts, Enric Valor Micó	"A statistical study of latent diffusion models for geological modeling", **Oscar Ovanger**, Jo Eidsvik, Daesoo Lee, Ragnar Hauge, Jacob Skauvold, Erlend Aune		
14:40	"Machine Learning methods applied to ground and aerial data from abandon copper Mostardeira Mine, Portugal", **Pedro Nogueira**, Marcelo Silva, José Rosério	"Geomodelling guided interpolation by geologic sketches using deep generative models", **Ryan Kanfar**, Isaac Ju, Ejaaz Aijshi, Abdulmohsen Alali WITHDRAWN	"Statistical metrics to explore climate-driven alterations in surface water chemistry: application to the Eastern Siberian Rivers", **Caterina Gozzi**, Antonella Buccianti	"Economical definition of ore: grade cutoffs or geo-metallurgical response?", **Fernanda Gontijo Niquini**, João Felipe Costa, C. Schneider, M. Pereira
15:00	"Vegetation detection in the west Antarctic Peninsula using historic imagery from the Landsat collection and validation using UAV acquired data", **Vasco de Pina Miranda**, Pedro Pina, Sandra Heleno, Gonçalo Vieira	"Application of Generative Adversarial Network (GAN) to Geostatistical Modeling of Categorical Variables", **Mostafa Hadavand**, Clayton Deutsch	"Relations between river sediments and dissolved matter", **Juan Jose Egozcue**, Vera Pawlowsky-Glahn, Rita Fonseca, Maria Teresa Albuquerque	"Spatial modelling of compositional and geometallurgical variables with the variational Gaussian process model", **Ítalo Gonçalves**, Diogo Cordova
15:20	"Advancing invasive species detection through remote sensing and modelling in terrestrial and aquatic realms", **Nuno Mouta**, Eva Pinto, Renato Silva, João Gonçalves, Jacquim Alonso, João Cabral, João Honrado, Joana Vicente	"High-order fault observation association using Random Forest from analog structural models", **Amandine Frotani**, Guillaume Caumon, Radu Stoica, Jérémie Giraud	"A national-scale concept for quantifying and utilizing interpretation uncertainties in hydrogeological layer models", **Rasmus Bødker Madsen**	"Uncertainty assessment of ore type boundaries and grades with local models: a case study applied to a Neves Corvo deposit", **João Neves**, Sofia Menezes, Miguel Gonçalves, Amílcar Soares
15:40	**Coffee Break and Poster Session***			
16:00				
16:20		"Describing 3D TDEM modelling errors using a multivariate normal distribution for probabilistic 1D inversion", **Frederik Alexander Falk**, Thomas Mejer Hansen	"A statistical evaluation of the comparability of resistivity loggingtools", **Ingelise Møller**	
16:40		"Large-scale uranium in situ recovery inversion of concentration data: a benchmark on deterministic and stochastic geostatistical approaches", **Antoine Collet**	"Kriging Using James-Stein Estimators which Contract to Subspaces", **Samuel Oman** WITHDRAWN	
17:00		"Incorporating lithological well-logging as uncertain data in probabilistic inverse problems", **Jesper Nørgaard**, Rasmus Bødker Madsen, Anne-Sophie Høyer, Ingelise Møller, Thomas Mejer Hansen	"Re-evaluation of the design of the precipitation stable isotope monitoring network across Slovenia and Hungary using geostatistical tools", **István Hatvani**, Gábor Szatmári, Dániel Erdélyi, Polona Vreca, Klara Zagar, György Csuppon, Sonja Lojen, Zoltán Kern	

***POSTER SESSION**: THEORY, MACHINE LEARNING AND ARTIFICIAL INTELLIGENCE and INVERSE MODELLING

"Generalization of objects-based methods for unstructured grids", **Pierre Biver**, Alexandre Wolgenwitz

"Predicting the spatial distribution of stable isotopes in monthly precipitation across Europe using a machine learning approach", Dániel Erdélyi, Zoltán Kern, **István Gábor Hatvani,** Polona Vreca, Klara Zagar, Frederic Huneau, Aurel Perosu, Markus Leuenberger, Sonja Lojen, Oliver Kracht, Astrid Harjung, Pekka Rossi, Kaisa-Riikka Mustonen, Jeffrey Welker

"Assessing Resource Classification Risks: A Comparative Case Study of Methodologies", **Flavio Azevedo Amarante**, Vivian Kayser

"Uncertainty quantification and focus on extreme events in satellite precipitation product correction using machine learning", **Hristos Tyralis**, Georgia Papacharalampous, Anastasios Doulamis, Nikolaos Doulamis

"Unveiling Industrial Air Pollution: Transformer-Based Soft Sensor Forecasting", **Roberto Chang-Silva**, Nakhun Song, Kyungli Lee, Seonyoung Park

"Machine learning help to make insights about regional sedimentary provenance and routing pathways from multivariate mineralogical data", **Vasily Demyanov**, Amy Gough

"Uncertainty evaluation of geological scenarios in early oil exploration stages by machine learning", W. Emilio Moreno, **Marcel Bassani**, João Felipe Costa, João Lucas Alves, Leonardo Azevedo, Diego Marques, Amílcar Soares, Rodrigo Peroni, Vanessa Koppe

"Large-scale inversion in the context of uranium in situ recovery mining: using SPDE approach and the gradual deformation parametrization for uranium roll-front representation" **Antoine Collet**, Mike Pereira, Irina Sin, Hervé Chauris, Olivier Regnault, Valérie Langlais

Wednesday, September 4th

Auditorium South	Main Auditorium	Auditorium North	Room 1
	Keynote Talk "Deep earth query: information discovery from big earth observation data archives", **Begüm Demir**		
	"Nonparametric estimation of spatial covariance functions for spatial prediction of multi-temporal DinSAR data", **Alessandro Menafoglio**, Roberta Trolio, Teresa Bortolotti, Simone Vantini		
	"Some properties of the Ember spatial machine learning model", **Colin Daly**		
	"The gridtree spatial kernel predictor for huge observation sets", **Henning Omre**, Mina Spremic		
	"Non-stationary multivariate simulations: simultaneous trend removal and decorrelation using Kernel Density Estimation", **Ilnur Minniakhmetov**		
Coffee Break			
"Uniform conditioning applied to the selective mining unit as an alternative to localized uniform conditioning", **Marie-Cécile Fetney**, Jacques Rivoirard, Zélie Jannet	"Bayesian wavelet estimation based on seismic volumes and well data", **Guillermina Sem**, Matt Walker, Håkon Tjelmeland	"Model validation with an ensemble of exhaustive 2d multivariate, continuous, and categorical datasets", Karim Mokdad, Mahshad Rezaei, **Jeff Boisvert**	"The growing use of machine learning and Bayesian methods in ecological modelling", **Luis Silva**
"Bayesian Neural Networks: A Framework for Uncertainty Evaluation of Ore Type Boundaries", **Helga Jordão**, Amílcar Soares	"Uncertainty assessment by using multi-solution geostatistical seismic inversion", **João Lucas Alves**, João Felipe Costa, Amílcar Soares	"Fully nonseparable space-time models for multivariate data", **Xavier Emery**, Denis Allard, Lucia Ciarotto	"Geospatiotemporal data integration and high-performance computing for environmental monitoring in large agricultural systems", Olatunde Akanbi, Misha Mandeyam, Laura Bruckman, Yinghui Wu, Erika Barcelos, **Jeffrey Yarus**, Roger French
"Optimizing an iron ore mining value chain under geological uncertainty", **Will Patton**, Rhonda O'Sullivan, Scott Dennett	"A novel full waveform inversion and stochastic rock physics approach for estimating porosity and saturation in the critical zone", **Benjamin Eppinger**	"A criterion and incremental design construction for simultaneous kriging predictions", **Werner Mueller**, Helmut Waldl, Camelia Trandafir	""Real-time" geostatistics for an uncertainty driven environmental soils characterization – First field algorithms reviewed and discussed", **Antoine Heude**, Justine Elias, Victorine Herbin
"A review of the current framework and tools for managing geological uncertainty", **Alejandro Cáceres**, Xavier Emery	"Transdimensional reservoir data inversion for a 2D geological layered model with horizon slopes and horizontal permeability trends", **Julien Herrero**	"A Bayesian quantile clustering approach of spatio-temporal climate time-series", **Paolo Girardi**, Victor Muthama Musau, Carlo Gaetan	"Kriging-based methods for spatial downscaling of climate models", **Valeria Todaro**, Marco D'Oria, Camilla Fagandini, Daniele Secci, Andrea Zanini, J. Jaime Gómez-Hernández, Maria Giovanna Tanda
Lunch			
	Keynote Talk "Machine learning for predictive uncertainty quantification in hydrology, water demand and satellite data correction", **Georgia Papacharalampous**		
"Geostatistical modelling of the Madeira Abyssal Plain", **Ana Filipa Duarte**, Leonardo Azevedo, Renato Mendes	"A neuroscience case study of the integration of data from 2D slices into estimation of local probabilities on an irregular and topologically complex 3D surface", **Mohan Srivastava**	"Exploring complex fields: a Riemannian framework for covariance formulation", **Andreas Pavides**, Maria-Despoina Koltsidopoulou, Dionysios Christopoulos, Emmanouil Varouchakis	"An approach to fair predictions for spatial data", **Pepa Ramírez Cobo**, Jose Ismael Montero Lopez
"Mapping the Gulf Stream with a Bayesian approach", **Alessandro Comunian**, Mauro Giudici, Arianna Panzeri	"Probabilistic analysis of PET images using informed prior models and machine learning", **Thomas Mejer Hansen**, Mikkel Vendelbo	"High-order stochastic simulation via semidefinite programming", **Lingqing Yao**, Roussos Dimitrakopoulos	"Assessing urban development model in Europe and North Africa using geospatial data", Alin Maricut, **Dian-Ionel Gradinaru**, Vasile Strat
"Data analysis predicting accelerated melting of the Greenland ice sheet", **Bjorn Birnir**, Aletheo Barbaro, Sam Subbey, Warsha Singh, Hannah Murphy, Salah Alrabeei, Yushi Qin	"Using cattle hair to assess exposure to essential trace elements in volcanic soils", **Diana Linhares**	"Efficient computation on large regular grids of high-order spatial statistics via fast Fourier transform: a unified approach extending variogram and cross-covariance programs", **Dany Lauzon**	"Developing a Unified Exploration Model based on the Bayesian Hierarchical Framework", **Ehsanollah Basiniajar**, Nuril Tomlinson, Stefan Siegert, Daniel Williamson
Coffee Break and Poster Session*			
	Soaring Beyond Geostatistics: The Amicable Way *A friendly look at the future of geostatistics in the AI era* J.J. Gómez-Hernández		

***POSTER SESSION**: MINING ENGINEERING and UNCERTAINTY AND RISK ASSESSMENT

"Block sequencing minimizing geological risk using geometallurgical parameters in the short term", Augusto Andres Torres Toledo, Fernanda Gontijo Niquini, **João Felipe Coimbra Leite Costa**

"Application of temporal lag model for forecasting metallurgical parameters: The case study for Cuiaba Mine, Minas Gerais, Brazil", Mariana Dazire Lemos, **Fernanda Gontijo Niquini**, Attila Leaes, Nathan Davi Ribeiro Massote, João Felipe Coimbra Leite Costa, Marcus Felix Magalhães, José Greglorio da Mata Filho, Claudio Schneider, Bruno Aki Figueira

"The challenge of density estimates in mineral deposits combining geophysical gravimetric inversion and drill hole logging", W. Emilio G. Moreno, **Marcel Bassani**, Gary Falion, João Felipe Coimbra Leite Costa

"Production reconciliation of a Localised Turning Band Conditional Simulation technique for Mineral Resource modelling of a gold deposit in Australia", **Winfred Assibey-Bonsu**, Richard Tully, Marco Tassone

"Grade estimation under the geological control based on the geostatistical joint modeling method and machine learning methods", **Xiaoning Liu**, Gongwen Wang

"Quantification of volcanic CO2 fluxes in the Azores archipelago based on sequential Gaussian simulations", **Fátima Viveiros**, Carlo Cardellini, Catarina Silva, César Andrade

"An analysis of the porosity of volcanic rocks from Fogo (Água de Pau) volcano (S. Miguel Island, Azores, Portugal) using advanced statistical methods", **Maria Luisa Pereira**, Lucia Poppolardo, Gianmarco Buono, Nora Cueto, Vittorio Zanon, Isabel Fernandes

"Parametric and spectral analysis applied to soil CO2 flux time series: Application to seismovolcanic monitoring in the Azores archipelago", **Sérgio Oliveira**, Fátima Viveiros, Catarina Silva

"Inter-event time statistics for the central volcanoes of São Miguel Island, Azores", **Simone Aguiar**, Laura Sandri, Adriano Pimentel, Sérgio Oliveira, José Pacheco

"Enhancing mining project decision making under geological uncertainty - application of geostatistical simulations", **Will Patton**, Ilnur Minniakhmetov, Jayant Ashford, Rhonda O'Sullivan

Thursday, September 5th

Auditorium South	Main Auditorium	Auditorium North	Room 1
	Keynote Talk "The building blocks of intelligent subsurface reservoir management", **Ahmed Elsheikh**		
	"Uncertainty in AI Based Reservoir Modelling Workflows", **Vasily Demyanov**, Quentin Corlay, Athos Nathanail, Chao Sun, Gleb Shishaev		
	"Unveiling the power of physics: a comparison between ANN and PINN for groundwater modeling", **Daniele Secci**, Vanessa Godoy, J. Jaime Gómez-Hernández		
	"Finding water service lines with hazardous material using a compositional approach and geostatistics-informed machine learning", **Pierre Goovaerts**		
	"Informative Mapping of Construction Aggregate Resources Through Statistical Data Analysis (INTEGRATE)", **Thomas Mejer Hansen**, Mats Lundh Gulbrandsen and INTEGRATE Working Group		
Coffee Break			
"An integrated approach to drillhole spacing studies in mining projects: a case study in a Brazilian iron ore deposit", Gabriel Moreira, Gustavo Scholze, João Felipe Costa, Arthur Endlein, **Roberto Rolo**, Danyel Usero, Débora Roldão, Aloma Tente, Alexandre Hubener	"Screening and Ranking of Geostatistical Models Through Identification of Reservoir Connectivity and Preferential Flow Paths Using Physics Informed Machine Learning", **Masahiro Nagao**, Akhil Datta-Gupta	"Optimising leigh gaz parameters with evolutionary algorithms: Genetic Kriging Neighbourhood analysis", **Anthony Cook**	"GWSDAT: GroundWater Spatiotemporal Data Analysis Tool", **Wayne Jones**, Luc Rock
"Stochastic joint modelling of hydrothermal alteration halos and associated geological structures applied to mining studies", **Paul Marchal**, Guillaume Caumon, Pauline Collon, Patrick Ledru, Kelsey McKee, Julien Mercadier	"Spatial cross-validation for Machine Learning models estimates", **Attila Rodrigues**, Fernanda Gontijo Niquini, Wilmer Moreno, João Felipe Costa	"Iterative gaussianisation with householder transformation", **Oscar Rondon**	"Geostatistics for spatial extremes: recent approaches", **Maria Manuela Neves**, Dora Prata Gomes, Clara Cordeiro
"Using multiple sources of well data in a multi-scenarios approach with probability updating: real case application", Salvatore Azzaro, Andrea Da Pra, **Davide Di Curzio**, Marco Pontiggia	"Multi-layer Perceptrons vs Transformers vs Weil Logs: Automated Identification of Pays in 5,217 Wells", **John Grace**	"Beyond parametrics: Kernel Mean Embedding for advanced geostatistical simulations", **Athanais Gautier**, Roussos Dimitrakopoulos	"Modelling the effects of climate change on the risk of expansion of seven invasive plant species in oceanic islands (Azores)", **Lucas Borges Silva**, João Fontes, Eduardo Brito de Azevedo, Francisco Vieira Reis, Luis Silva
"Carbon storage uncertainties: application to a real field case and link with connectivity proxy", **Pierre Biver**, Maleya Ch., Esriat C., Onwuchekwa V., Vanhulst M., Lejay A.	"Revolutionizing Hydrocarbon Exploration through Rock Physics Guided Deep Learning: A case study on Eocene Carbonates of Western Offshore Basin", **Soumik Roy**, Hemant Dixit, Manish Shukla, Kumar Hemant Singh	"New families of covariance functions", Donato Posa, **Sandra De Iaco**, Monica Palma	"A Climatic drivers and tree growth in a key production species: the case of Cryptomeria japonica (Thunb. ex L.f.) D.Don in the Azores archipelago", **Diogo Paixão**, Dana Brunner, Roberto Resendes, Jernej Jevšenak, Lurdes Borges Silva, Luis Silva
Lunch			
	Keynote Talk "Data-efficient deep learning using physics-informed neural networks", **Maziar Raissi**		
"Joint 4D inversion of fluid saturation and lithology", **Ragnar Hauge**, Charlotte Semin-Sanchis, Heidi Kjønsberg	"Performance comparison of multivariate transformations for geostatistical simulation", **Julian Ortiz**, Sebastian Avalos, Alvaro Riquelme	"Improvement of Uncertainty Quantification of Mineral Resource Estimation using Machine Learning", **Hadrien Meyer**, Claude Cavelius, Johann Dangin, Gustavo Pilger, Claver Gnamien, Anouar Lachgar	"A new high-resolution residential radon map for Germany using a machine learning based probabilistic model", **Eric Petermann**
"Modeling fracture networks as graphs", **Ana Paula Burgoa Tanaka**, Philippe Renard, Julien Straubhaar, Dany Lauzon	"Transitive geostatistics as an alternative to the direct and indirect approaches for modeling deposits with a narrow geometry: Application to a vein-type deposit", **Mohammad Maleki**, Lukas Meszaros, Nadia Mery, Xavier Emery	"Underground stope design under geological uncertainty using deep reinforcement learning", **Roberto Noriega**, Jeff Boisvert	"Rates of change in past warm periods, Part 2", **Manfred Mudelsee** WITHDRAWN
"Sustainable Mining – Decommissioning and mine closure processes", **Jorge Guronski**	"A Proposal for a Hierarchical and Hybrid Methodology for Resource Classification: Integration of Traditional Methods with Risk Maps", **Leandro Oliveira**, João Felipe Costa, Maria Pessoa, Luiz Carvalho, Luciano Capponi, Rodrigo Alcantara	"Development of a Transfer-Learning Core-Image Based Classification Approach across Diverse Geological Settings", **Debasttati Ghosh**, Bo Zhang, Nidhi Hegde, Jeff Boisvert	"Diffusion-based 3D simulation of clay microstructures", **Ali Aouf**, Eric Laloy, Bart Rougiers, Christophe De Vleeschouwer
Coffee Break and Poster Session*			
	Closing Session		

***POSTER SESSION**: ENVIRONMENTAL ENGINEERING AND ECOLOGY, HYDROGEOLOGY and REMOTE SENSING

"Variography and geostatistical tools for the QAQC of AI generated quantification of pollutants in contaminated lands", **Antoine Heude**, Justine Elias

"Spatiotemporal modelling of rainfall in Rio Grande do Sul state, Brazil, using the Gaussian process model", **Everton Frigo**, Italo Gomes Gonçalves

"Mixed distribution approaches to address process heterogeneity – the case of low-flow frequency analysis", **Gregor Laaha**

"Charting Chaos: crafting a spatio-temporal model for the brown marmorated stink bug in Emilia Romagna", **Luis Grilo**, José Rafael Silva, Lara Maistrello, Elena Costi, Cristina M. Pinotti, Manuela Simões, José Almeida

"3D spatial reconstruction of buried peat layers based on legacy borehole data", Pablo De Weerdt, Jeroen Verhegge, Philippe De Smedt, **Ellen Van De Vijver**

"Applying hierarchical cluster analysis to define rainfall regions on São Miguel Island (Azores, Portugal) using monthly precipitation data", **Rui Fagundes Silva**, Rui Marques, José Luís Zêzere, Marcelo Fragoso

"Analyzing the effects of human pressures on emerging contaminants occurrence and stygofauna distribution in groundwater ecosystems", **Anna Menció**, Marc Bisbe, Nonito Ros-Berja, Meritxell Gros, Josep Mas-Pla

"Statistical approaches to estimate volcanic CO2 emissions. Pico Island Lakes (Azores archipelago) used as a study case", **César Andrade**, Fátima Viveiros, J Virgilio Cruz, Leticia Ferreira

"A geostatistical approach to salinity estimation in the coastal aquifers of the Luy River, Binh Thuan, Vietnam", Diep Cong Thi, **Ellen Van De Vijver**, Hieu Ho Huu, Frédéric Nguyen, Thomas Hermans

"A combined use of General Lake Model and Electrical Resistivity Tomography to identify changes in aquifer-lagoon relationships", Warren Meredith, **Anna Menció**, Carles Roqué, Eduard Madaula, Mario Zarroca, Xavier Casamitjana, Xavier D. Quintana

"A multidisciplinary approach for groundwater modeling: a case study in the Mantova province of the Northern Po Plain (Italy)", **Andrea Zanini**, Riccardo Pinardi, Laura Molino, Andrea Artoni, Riccardo Avanzi, Fulvio Celico, Alessandro Chelli, Camilla Fagandini, Giovanna Pesente, Michele Zaghini

"Plume dynamics of a mafic, explosive eruption: The 2023 eruption of Shishaldin Volcano in Alaska", **Rui Mota**, Alexa R. Van Eaton, Larry G. Mastin, David J. Schneider, José Pacheco, Artur Gil

"Increase of tropical nights in Peninsular Spain: analysis based on ROCIO_IBEB (AEMET) and ERA5-LAND (C3S) (1951-2021)", **Sara Arribas Manch**, Raquel Corts, Martín Roselló, Enric Micó, Maria Navarro, David Custardoy

TOPICS:

Theory	Uncertainty and Risk Assessment	Mining Engineering	Geo-energy	Machine Learning and Artificial Intelligence	Inverse Modelling	Health, Epidemiology and Ecotoxicology	Enviromental Engineering and Ecology	Hydrogeology	Ocean Science	Remote Sensing