GROUNDWATER QUALITY 2025

10 to 13th of june of 2025
Bordeaux, FRANCE
6th edition

-- PROGRAM --

TUESDAY MORNING

INTRODUCTORY SESSION

- Conference Introduction
- Groundwater quality: a major research question for Bordeaux Region
- The French Geological Survey position in front of groundwater
- ADEME: French environmental agency research funding soil contamination studies
- Recent history of groundwater quality questioning and GQ evolution *(Peter Grathwohl, Germany)*

LONG TERM APPROACH OF GROUNDWATER QUALITY

Keynote : Elumalai Vetrimurugan (U. Zululand). Emerging Trends in Groundwater Pollution and associated health risks in South Africa

31. Denitrification in German aquifers – a large-scale study
Andreas Musolff, Stephan Hannappel

52. Advancing global groundwater quality understanding through data sharing and collaboration
Feifei Cao, Claudia Ruz Vargas

153. Long-term impact of pesticide residues in agricultural subsurface soils on surface and groundwater quality.
Anna K. Nielsen, Anne Esbjørn, Iben K. Nilsson, Charlotte S. Vesterlund, Tove Svendsen, Lars F. Pedersen, Katerina Tsitonaki, Poul L. Bjerg

158. (Invited talk) Role of NSZD in closing corrective actions at petroleum NAPL-impacted sites
James Rayner

TUESDAY AFTERNOON

SURFACE-GROUNDWATER INTERACTIONS IN URBAN AND RURAL CONTEXT

Keynote: Yan Zhen (China). Augmenting Surface Water - Groundwater Interaction to Promote Biodegradation of Antibiotics

26. Source Water Protection in Quebec City: Integrated surface and subsurface hydrological modelling to assess surface water intake vulnerability
Benjamin Frot, Laura Gatel, Yohann Tremblay, Hugo Delottier, René Therrien

109. Quantification of the influence of a Rhine flood on the microbiology of groundwater
Isabell Erdmann, Verena Brauer, Rainer Meckenstock

115. Challenges in urban hydrogeology – groundwater quality and resources
Mario Schirmer

151. Modelling of groundwater nutrient transport from land to sea at the semi-arid Caribbean Island of Curaçao
Mike Wit, Anne Versleijen, Titus Kruijssen, Victor Bense, Boris Van Breukelen

NEW TOOLS TO INFER CONTAMINATION

Keynote: Richard Martel (Canada). Innovative Treatments of NAPL source zones

75. Assessment of Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) Mass Flux and Distributions in a Lake System Using Sediment Bed Passive Flux Meters and Ceramic Dosimeters
Alexander Haluska, Andreas Meder, Bernd Susset, Klaus Röhler, Renate Seelig, Amirhossein Ershadi, Jay Cho, Mike Annable, Peter Grathwohl

100. In Situ Monitoring of Lnapl-Contaminated Aquifer Treatment Using Ultraviolet Light-Induced Fluorescence Imaging
Radjiv Bewi, Antonio Rodriguez De Castro, Olivier Atteia

WEDNESDAY MORNING

QUALITY AT THE CATCHMENT SCALE

Keynote: Christian Moeck (Switzerland). Balancing Water Security and Contamination Risks: Adaptive Management using Managed Aquifer Recharge (MAR)

48. Dynamics of nitrate and organic carbon in fluxes in groundwater across spatial and temporal scales - a catchment scale model analysis
Thanh Quynh Duong, Timo Houben, Kayalvizhi Sadayappan, Abigail S. Knapp, Li Li, Anke Hildebrandt, Martin Thullner

76. Evolution of groundwater hydrochemical characteristics and fate of pharmaceutical and personal care products during groundwater recharge: A case study in the North China Plain
Xiangke Kong

101. Diffuse groundwater pollution from urban sources and agriculture
Mariem Laouissi, Marco Petitta, Mohamed Fethi Ben Hamouda

108. An Isotope-Based Early-Warning Model for Monitoring Groundwater–Leachate Contamination Phenomena
Giuseppe Sappa, Flavia Ferranti

NEW APPROACHES OF HETEROGNEOUS SYSTEMS

69. Evaluating the Impact of Enhanced Mixing on Groundwater Quality: Redox Reactions, Fate of CECs and ARGs, and Ecotoxicological Implications
Paula Rodriguez-Escales, Sonia Jou, Lurdes Martinez-Landa, Daniel Fernandez-Garcia, Michela Trabuchi, Gerard Quintana, Silvia Diaz-Cruz, Laia Navarro, Claudia Sanz, Benjami Piña, Jesus Carrera

78. Hydrochemical impact from underground constructions and groundwater abstraction -the current and future influence from changes to the climate and the bulk precipitation deposition
Fredrik Mossmark, Viktor Bergion, Anders Blom, Lars O. Ericsson

86. Overcoming Subsurface Complexity: The Case for Environmental Sequence Stratigraphy as a Best Practice in Groundwater Restoration
Rick Cramer, Mark Stapleton, Beth Parker

122. Fate and Transport of Microplastic Fibers in Inhomogeneous Groundwater Systems
Navid Tavakoulnia, Mojdeh Rasoulzadeh

156. Hydrogeological Characterisation And Modeling Of An Lnapl Impacted Aquifer To Define The Remediation Scenario
Christophe Barnier, Florian Dalstein

161. Groundwater flow and HCH transport model through the sands and gravels of the Gállego River alluvial aquifer (Huesca, Spain)
Brais Sobral, Javier Samper, Luis Montenegro, Alba Mon, Joaquin Guadaño, Jorge Gomez, Javier San Roman, Felipe Delgado, Jesus Fernandez

WEDNESDAY AFTERNOON

THE ROLE OF BIODEGRADATION IN WATER QUALITY

18. The flooding of a bank filtration site for municipal water supply in Wrocław (Breslau) and its hydrochemical, microbiological and temperature effects – insights from an old data set
Georg J. Houben, Karol Zawistowski, Maciej R. Kłonowski

144. Microcosm to MSSS: development of treatment strategies for a radionuclide plume at an active nuclear site.
David Holmes

150. Determining a Bulk Plume Degradation Rate for TCE in Fractured Sandstone using Multiple Lines of Evidence at Laboratory and Field Scales
Amanda A. Pierce, Beth L. Parker, Ramon Aravena, David L. Freedman, Richard G. Andrachek

PFAS IN GROUNDWATER

Keynote: Fritjoff Fagerlund (Sweden). Fate and transport of per- and polyfluoroalkyl substances (PFAS) in the soil-groundwater system

44. Managing PFAS Contamination in Belgium's Largest Wellfield: A Case Study
Tanguy Robert, Guillaume De Schepper, Eric Chauveheid, Stefaan Meeus, Georges Jumet

47. Investigation and modelling of PFAS leaching from landfills to groundwater and surface water
Nika Bilic, Poul Bjerg, Biao Jin, Klaus Mosthaf

61. Understanding the input of per- and polyfluoroalkyl substances (PFAS) into groundwater systems during managed aquifer recharge systems by measuring PFAS concentrations and long-term stable water isotope signals (δ18O and δ2H)
Tabea Mumberg, Lutz Ahrens, Philip Mccleaf, Frida Brännlund, Oliver Ekesiöö, Philipp Wanner

88. Assessment of parameters for the transport of PFAS in the unsaturated and saturated zone of a sandy aquifer
Laura Morsing, Therese Lyng Petersen, Klaus Mosthaf, Annika Sidelman Fjordbøge, Nina Tuxen, Poul L. Bjerg

THURSDAY MORNING

MODELLING GROUNDWATER QUALITY

Keynote: Massimo Rolle (Germany). Recent advances in reactive transport modelling

27. Emerging pollutants: removal of lithium in runoff- and groundwater; from lab study to full scale treatment
Laurent Thannberger

116. Extensive research on the factors affecting the behaviour of heavy metals originating from pyrite ash in an estuarine area: from lab and pilot test to remedial design
Jeroen Vandenbruwane, Lionel Counet, James Delanoeye

130. Using the GQ Toolbox to transform metal mining
Henning Prommer, James Jamieson, Riccardo Sprocati

157. In Situ Groundwater Remediation with Layered Double Hydroxides: Injection Strategies for Bimolecular Reactions
Dimitrios Vlassopoulos, Ali Meyal, Deviyani Gurung, Olivier Atteia

FLUX MEASUREMENTS FOR SITE CHARACTERIZATION

Keynote: Serge Brouyère (Belgium). Risk based approaches using contaminant fluxes

49. Contaminant mass discharge a metric in risk assessment and evaluation of remedial actions at contaminated sites
Anton Bøllingtoft, Mads Troldborg, Nina Tuxen, Vinni Rønde, Poul L. Bjerg

66. Innovative approaches to groundwater dynamics and Contaminant mass flux characterization using In-Well Point Velocity Probes (IWPVP) to enhance remediation efforts
Nathalie Nief, Trevor Osorno, Matthieu Cao-Thanh, Marine Goyallon, Jean-Sebastien Dehez

125. Innovative real-time iFLUX sensors reveal rapidly changing groundwater – surface water dynamics: technology presentation & two case studies
Goedele Verreydt, Erik Bosmans, Niels Van Putte

136. Characterisation of Groundwater flux and direction using Active-Distributed Temperature Sensing: first modelling results
Luca Varisano, Nataline Simon, Serge Brouyere

THURSDAY AFTERNOON

Keynote: Ilka Wallis (Australia). Evolution of modelling to face the PFAs behaviour

ROOM 1

PROCESSES INTERACTIONS IN COMPLEX SYSTEMS

54. Did we break our tool: Can boron and boron isotopes still trace urban wastewater in surface- and groundwater?
Wolfram Kloppmann, Eline Malcuit, Catherine Guerrot, Coralie Soulier

107. The significance of the colmation layer on the removal of organic micropollutants during surface water infiltration
Bas Van Der Grift, Peer Timmers

137. Spatial and temporal overview of groundwater fauna in two urban aquifers *Fabien Glatting, Philipp Blum, Lars Schmid, Elena Bindschädel, Hannes Hemmerle, Jens Bölscher, Marielle Geppert, Kathrin Menberg*

141. Dissolved Organic Matter and Heavy Metal Dynamics across the Urban Environment *Diego Schmidlin, Stefan Platikanov, Marc Teixidó, Eike Marie Thaysen, Roma Tauler, Enric Vázquez*

143. Groundwater modelling to support monitoring of natural attenuation
Hanna Zandin

UNDERSTANDING PROCESSES AT DIFFERENT SCALES

68. Influence of redox and temperature variations on the attenuation of pharmaceuticals: Insights from parallel batch reactor experiments
Alejandra Villa, Nafiseh Salehi Siavashani, Estanislao Pujades-Garnes, Nicola Montemurro, Sandra Perez, Jan Willem Foppen, Marc Teixido, Anna Jurado

80. Experimental investigations and modeling of isotope fractionation during backdiffusion of chlorinated solvents from low-permeability porous media
Patrick Höhener, Asma Ben Salem, Maria Prieto Espinoza, Daniel Bouchard, James Henderson

93. In Situ Chemical Oxidation of Trichloroethylene Using Xanthan-Modified Permanganate Solutions: 1-D and 2-D Experimental Approaches
Cihan Okutan, Olivier Atteia

112. Pore-Scale Investigation of a Novel Method for the Remediation of Soils Polluted with Chlorinated Solvents Based on Compositional Ripening with Pickering Emulsions
Shuxin Wang, Antonio Rodriguez De Castro, Azita Ahmadi-Senichault, Abdelaziz Omari, Fernando Leal-Calderon

ROOM 2

EMERGING CONTAMINANTS ON A LARGE SCALE

70. Sorption of PFAS and TCE in colloidal activated carbon in co-mingled groundwater plumes
Joel Fabregat-Palau, Alexander Arthur Haluska, Annegret Walz, Bharat Choudhary, Peter Grathwohl

79. Ambient concentrations of PFAS in soil and groundwater in Sweden – results from a national survey conducted within an ongoing government effort for strengthened coordination and guidance on PFAS-contaminated areas
Lars Rosenqvist, Maria Åkesson

82. Micropollutants in groundwater originate from sludge amended fields
Katerina Tsitonaki, Martin Hansen, Karen Andreasen, Jakob Magid, Anne Esbjørn, Helle Ugilt Sø, Liselotte Clausen

104. Recent advances in PFAS fate and transport in groundwater and perspectives for future research
Frederic Cosme, Matthew Lee, Rula Deeb

148. Compositional changes of per- and poly-fluoroalkyl substances during groundwater transport and exfiltration into surface water
Francesco Scattolini, Daniel Hunkeler, Geëtan Glauser

REGIONAL STUDIES OF GROUNDWATER QUALITY

91. The Budos spring, a mixture of old and recent water. Where does the water come from?
Laurie Lemaitre, Marc Saltel, Bernard Ladouche, Jessy Jaunat, Melanie Erostate, Bruno De Grissac

110. Study of the occurrence of organic contaminants in groundwater of an endorheic basin draining to a salt lagoon–Fuente de Piedra (Southern Spain)
Marta Inés Llamas, Pablo Jiménez-Gavilán, Carmen Corada-Fernández, Lucía Ojeda, Joaquín Jiménez-Martínez, Iñaki Vadillo

131. Integrated approach for predicting geogenic contaminants in Groundwater
Julie Lions, Eric Lasseur, Louis Alus, Catherine Lerouge, Justine Briais

167. Geochemical and Isotopic Insights into the Oued Laya Aquifer: Assessing Groundwater Quality and Vulnerability in a Climate-Impacted Region
Farah Nefzaoui, Mohamed Fethi Ben Hammouda

FRIDAY MORNING

ROOM1

ANALYSIS FOR PFAS BEHAVIOUR

20. PFAS sorption –comparing methods to determine Kd values for clayey tills and limestone
Esther Schott, Søren Dyreborg, Poul Løgstrup Bjerg, Anders G. Christensen, Annika Sidelmann Fjordbøge

74. Complementary Field and Laboratory Batch Studies to Quantify Generation Rates of Perfluoroalkyl Acids in a Contaminated Agricultural Topsoil with Unknown Precursors
Alexander Haluska, Klaus Röhler, Joel Fabregat-Palau, Diogo Alexandrino, Sergey Abramov, Katharine Thompson, Daniel Straub, Sara Kleindienst, Boris Bugsel, Jonathan Zweigle, Christian Zwiener, Peter Grathwohl

123. Major parameters for PFAS up-washing with foam in the unsaturated zone, a modelling approach
Leonard Botella, Isabelle Delsarte, Henri Bertin, Olivier Atteia

127. Advancing PFAS methods to quantify and mitigate leachability from soil source zones to groundwater
John Rayner, Greg Davis, Daniel Slee, Wallis Ilka, Henning Prommer, Divina Navarro

138. From Precursors to Persistent PFAAs: Laboratory and Column Approaches for Predicting Leaching Time Scales in Contaminated Soils
Peter Grathwohl, Joel Fabregat-Palau, Alexander Arthur Haluska

162. Leaching and transport of PFAS from aqueous film-forming foam in porous media under saturated and unsaturated conditions: new insights from combining column experiments and reactive transport modelling
Nicolas Devau, Hugues Thouin, Samuel Mertz, Mohamed Djemil, Anne Togola, Sebastien Bristeau, Stefan Colombano, Fabien Lion, Ali Batikh, Julie Lions

REMEDIATION INNOVATIONS AT THE PILOT SCALE

38. Combining Microbiological, Chemical, and Abiotic Processes for Simultaneous Degradation of cVOCs and Removal of Dissolved Metals
Alan Seech, Daniel Leigh, Michael Mueller, Erwan Goulian

58. Overcoming mass-transfer limitations in heterogeneous subsurface porous media combining electrokinetic and pressure-driven flow and transport
Riccardo Sprocati, Alberto Guadagnini, Andrea Gallo, Massimo Rolle

67. Pilot test of remediation of interstratified permeable levels in aquitards to reduce the rebound effect due to back diffusion.
Diana Cuerda, Alberto Martos, Alberto Ruiz, Patricia Lopez, Francisco Javier Vicente, Encarnacion Morcillo, Joaquim Grajales, Magdalena Ruiz, Joaquim Perez, Amparo Lucas, Amelia Álvarez, Cristina Brosa

83. Monitored natural attenuation of an urban CVOC plume from 2004 to 2024 / Region of Hannover
Robert Kringel, Martin Wegner, Paul Jelen

114. Linking microbial gene-expression and denitrification rates: Insights from an intermediate-scale in-aquifer injection-extraction experiment and reaction model
Cora Strobel, Adrian Mellage, Olaf Cirpka, Franziska Schaedler, Daniel Straub, Carsten Leven, Sara Kleindienst

146. Evaluating the Effectiveness of Bedrock Vapor Extraction in a Fractured Sandstone
Ferdinando Manna, Jonathan Kennel, Laura Weaver, Amanda Pierce, Beth Parker

ROOM 2

TRENDS IN VULNERABILITY ASSESSMENT

21. Biodegradation of atrazine in groundwater: Point vs. non-point sources
Anat Bernstein

23. Epukarst – evaluation of nitrate behavior in 5 karst watersheds used for drinkable water production in Wallonia (South Belgium)
Amaël Poulain, Sofie De Volder

24. Emerging water quality challenges in large cities of Western-Central Africa, the need to build an integrated urban water management policy
Bertil Nlend

59. Qualitative impact incorporation into the drought indicators of a coastal aquifer. The Vall Baixa and Llobregat Delta aquifer case. Barcelona.
Vinyet Sola De Roa, Enric Queralt Creus, Jordi Massana Molera, Jose Luis Garcia Arostegui

96. Predicting vulnerability regions in urban aquifers under minimum data requirements
Karen Rojas-Gomez, Sifat Siddik, Peter Krebs

103. Urban Groundwater Contamination: Assessing Pfas and Nitrate From Sewage Sources
Elizabeth Naranjo, André Miranda, Willem Takiya, Neil Thomson, Juliana Gardenalli De Freitas, Ricardo Hirata

MODELLING COMPLEX AND COUPLED PROCESSES

45. MiBiPreT: A modelling framework in python for subsurface contaminant transport and microbial biodegradation
Alraune Zech, Jorrit Bakker, Jaro Camphuijsen, Robin Richardson, Sona Asseyednezhad, Johan Van Leeuwen

50. Modeling long-term trends in groundwater nitrate using machine learning to identify interlinked mechanisms
Gustavo Covatti, Joel Podgorski, Kai-Yun Li, Lenny Winkel, Michael Berg

81. Why, How, and When Complex Kinetics of Microbial Reactions Simplify to Apparent Zero-Order Rates of Dissolved Electron Acceptors
Vitor Cantarella, Adrian Mellage, Olaf Cirpka

126. Assessment of aquifer contamination persistence under linear source depletion *Seonggan Jang, Minjune Yang*

135. Simulation of hydrobiogeochemical processes within the subterranean estuary at a real high-energy beach
Janek Greskowiak, Stephan Seibert, Anja Reckhardt, Gudrun Massmann

140. Process-based non-isothermal reactive transport modeling of in situ bioremediation of chlorinated ethenes combined with low-temperature Aquifer Thermal Energy Storage
Henning Wienkenjohann, Klaus Mosthaf, Massimo Rolle

TUESDAY AFTERNOON : POSTERS

EMERGING CHEMICALS: PFAS

34. Study of PFAS pollution affecting a groundwater pumping site in a fractured chalk aquifer (Mons – Belgium)
Anthony Mahieu, Tanguy Robert, Pascal Goderniaux, Guillaume De Schepper

39. An Investigation into the Modelling of Microplastic and Nano-plastic Transport in Porous Media Using Time-dependent Retention Profiles.
Liam Duncan, Abbas El-Zein, Surya Sujathan

40. Effects of microplastics on wheat performance in sewage sludge-amended soils.
Anna Charatzidou

43. Experimental determination of Kd values for PFAS in Flemish soils
Ward Swinnen, Ilse Van Keer, Joni Dehaspe, Jan Jordens, Ingeborg Joris, Stefan Voorspoels, Laetitia Six, Griet Van Gestel, Georgios Niarchos, Katrin Vorkamp, Valeria Dulio

53. Multicomponent and surface charge effects at the mineral-water interface: experimental evidence and reactive transport modeling of PFOS transport behavior in goethite-coated sand
Jacopo Cogorno, Massimo Rolle

72. Preliminary insights on PFAs contamination: the case of a deep multilayered alluvial aquifer, Parma, northern Italy
Laura Ducci, Riccardo Pinardi, Federica Di Francesco, Chiara Meo, Giulia Pari, Pietro Rizzo, Fulvio Celico

73. Interlaboratory comparison 24-hours batch test PFAS
Ilse Van Keer, Hendrik Van De Weghe, Liesbet Van Den Abeele, Ingeborg Joris, Joni Dehaspe, Dirk Dedecker, Katrien Monsieurs

85. PFAS in urban groundwater: Geochemical processes that control their fate
Carmen Saez, Arianna Bautista, Estanislao Pujades-Garnes, Marinella Farre, Anna Jurado

102. SPUMA a french start up dedicated to the treatment of pfas with a new international patent
Franck Bouche, Hugo Carronnier

105. In-situ PFAS Stabilization by Injection of Organo-Clay (InSuFix Project)
Hans Baillieul, Jeroen Vandenbruwane, Ilse Van Keer, Nick Pays, Lise Destombes, Marjan Joris, Ward Swinnen

MUTIDISCIPLINARY APPROACHES

9. Metal pollution in water environment and the associated human health risk from drinking water: a case study of Ikire, Southwest, Nigeria.
Adebiyi Adebayo, Ayodele Olufemi

11. Well Water Quality Study: the case of Tanambao sotema, MAHAJANGA of MADAGASCAR
Ranjivah Frandley Randimbizaka, Esperence Ralantoherison

13. Evaluation of the Gumera Catchment's Mountain Hydrological Processes in Ethiopia
Tewele Haile

17. Impact of climate change on the water cycle: intensification of extreme events (floods and low flows) case of the high Inaouene watershed
Oumaima Ben Laghlagh, Jamal Naoura

29. Geochemical and Statistical Analysis of Groundwater Quality in the Context of Climate Change (Bou Omrane-Sabkhet Ennoual basin in the south of the Tunisian Atlas)
Ghaib Marwa, Tanfous Dorra, Dhahri Ferid, Walraevens Kristine

33. Understanding Groundwater Salinization and Water Quality Dynamics in Tunisia's Sahel Region
Khaoula Charrek, Mediha Arfaoui, Hakim Gabtni, Thomas Hermans, Kristine Walraevens

37. A Laboratory-scale Experiment for studying the Impact of Freeze-thaw Cycles on Soil and Groundwater Quality
Madhumita Sahoo, Domenico Baú, Steven Thornton

57. Changes of the Hydro-Ecological Environment Indicated by Geochemical and Magnetic Characteristics of Nebkha Sedimentary Profiles in the Shule River Basin in Arid Northwestern China
Lili Lang

64. Seasonal Vulnerability Assessment of the Island Aquifer of Bozcaada (Türkiye) to Seawater Intrusion Using the GALDIT Approach
Khalilullah Zulal, Raquel Marijuan Cuevas, Alper Baba, Orhan Gündüz

65. Typologie des eaux utilisées pour la production de l'eau potable. Cas de la région Fès-Meknès Maroc
Abdelaziz Zouhir

111. Using Nitrogen Isotopes and Other Environmental Tracers to Investigate Groundwater Pollution in Two Uncontrolled Dumpsites in Freetown, Sierra Leone
Ishmail Nashir Kamara, Ronnie A. D. Frazer-Williams, Viviana Re, Brunella Raco

134. Hydrogeochemical and isotopic investigations on transboundary groundwater of the North of the Central African Republic
Olivia Victoire Ngaïssona Namndouta, Frederic Huneau, Eric Foto, Thomas Leydier, Emilie Garel

173. Hydrogeochemical mechanism of high iodine formation in groundwater in North China Plain
Yuanjing Zhang

DECISION-MAKING FOR SUSTAINABLE MANAGEMENT OF GROUNDWATER QUALITY

4. Spatial analysis for the development of water resources in the commune of Soavinandriana for the benefit of the population
Miora Harivony Rakotondrabe, Etienne Castiau, Felaniaina Rakotondrabe, Ononamandimby Antsonantenainarivony

62. Identification and Mapping of Groundwater Potential Recharge Areas in Dosso Region/Niger by Multicriteria Analysis Method
Ibrahim Abdou Ali, Moussa Konaté

90. Evaluation of Multiple High-Resolution Precipitation Products and Their Implications for Water Resources Management in the Douala Sedimentary Basin (Cameroon)
Emvoutou Huguette Christiane, Ndonang Tchiengue Lambert, Bell Jean-Pierre, Tchokouaha Tchagam Franklin Albert, Alassane Abdoukarim, Mvondo Owono Francois, Ndam Ngoupayou Jules Remy, Faye Serigne

95. Pilot test on mitigating the effects of extreme climate events by promoting the recharge of alluvial aquifers of the La Muga River (Catalonia, Spain).
Juan Rubilar, Diana Puigserver, Jose Maria Carmona, Salvado Humbert, Jose Francisco Garcia, Nuria Lopez

120. Recent developments in the Apsû method for processes-based groundwater vulnerability mapping
Victoria Collignon, Philippe Orban, Pol Magermans, Alain Dassargues, Serge Brouyere

121. Using 3D GIS Methods for Optimizing Wellbore Trajectories and Managing Water Resources
Mohammed Amine Hafid, Abdellah Mebrek, Bouhadjar Meguenni, Abdelatif Dehni, Khaled Salim Bouakkaz

152. Water Automation and AI Applications for Groundwater Resources
Meena Sankaran, Dan Erck

172. The Use of Artificial Intelligence for decision making in Groundwater Quality Management
Elena Spallart, Martí Bayer-Raich

WEDNESDAY AFTERNOON : POSTERS

DIFFUSE GROUNDWATER POLLUTION FROM URBAN SOURCES AND AGRICULTURE

7. Integrated assessment of groundwater quality dynamics and Land use/land cover changes in rapidly urbanizing semi-arid region
Arif Ullah, Yicheng Wang, Sajjad Hussain

14. Use of Water Quality Indices, Principal Component Analysis, and Geostatistics for Groundwater Quality Assessment: A Case Study of the Thiaroye Quaternary Sand Aquifer in Senegal.
Edgar Yvon Terence Benam-Beltoungou, Isai Bassene, Huguette Christiane Emvoutou, Venyo Akpataku, Djim Diongue, Serigne Faye

16. Assessment groundwater vulnerability to pollution using DRASTIC model in the LAI agricultural area, CHAD (Central Africa)
Tidjani Bahar, Mahamat Moussa

22. Protection of Fossil Groundwaters in the Albian Aquifer- Southern Algeria-
Hamida Diab

36. Comparing Groundwater Sampling Methods for Denitrification Assessment: A Focus on N2 and Ar Measurements
Felix Fahrenbach, Thomas R. Rüde

41. Groundwater quality challenges for the water supply system of Agadez, Sahara region of Niger
Manal Wannous, Illias Alhassane, Robert Kringel, Paul Koeniger, Dennis Krämer

60. Influences of Anthropogenic and Natural Factors on Groundwater Quality In Urban Area: The Case of Thiaroye Quaternary Sands Aquifer (Dakar, Senegal)
Mandiaye Diene, Abdoulaye Pouye, Viviana Re, Brunella Raco, Seynabou Cisse Faye

139. Assessing nitrogen pollution sources in urban groundwater using emerging compounds and isotopic tracers: A case study from the city of Bangui (Central African Republic)
Olivera Aude Bidakette Yandaï, Frederic Huneau, Oscar Allahdin, Eric Foto, Thomas Leydier, Emilie Garel

149. Study of Nitrates Transfer in The Unsaturated Zone of The Recharge Area of Two Catchements in Ligaine (Deux-Sevres, France)
Fabrice Compere, Nicole Baran, Nicolas Surdyk, Wolfram Kloppmann, Jean Rillard

GROUNDWATER – SURFACE WATER INTERFACES AND INTERACTIONS

10. The Interface of fluorite with shallow water aquifers in parts of India and its health implications
S.K. Sharma

28. Coupling passive samplers and high-resolution mass spectrometry: an innovative approach to clarify surface water-groundwater interactions at a wellfield scale.
Laurine Grimaud, Valentin Dupraz, Guillaume Couturier, Patrick Candido, Elise Richard, Jessy Jaunat

51. Study and modelling of groundwater-surface water exchanges in an alluvial aquifer under urban forcing: the case of Grenoble (France, Alps)
Nathan Minon, Hélène Castebrunet, Geremy Panthou, Cédric Legout

97. Prohibited pesticide residues accumulation in freshwater, sediments, and fish in the Guiers Lake basin: Risks for Senegal's strategic water reservoir.
Alousseynou Bah

129. Evaluation of reasonable baseflow using multilateral tracing methods in a small watershed in South Korea
Seong-Sun Lee, Suh-Ho Lee, Hyeji Kim, In-Hee Cho, Ha-Yeong Seok, Kang-Kun Lee

155. Salinization of a coastal phreatic aquifer in a deltaic environment: Case of the Lower Valley of Medjerda Basin (Medjerda delta, Tunisia)
Mohsen Ben Alaya, Jean-Denis Taupin, Nicolas Patris, Eya Ben Saad, Mohamed Haythem Msaddek, Ines Ayari, Najet Chaabane, Baya Toumi, Fathedine Melki

159. Contribution of End Member Mixing Analysis Model to Characterize the Sources Responsible for Urban River Water Quality: Case of Houet River in Burkina Faso
Zacharie Dende Lushima, Élie Serge Gaëtan Sauret, Hillary Marie Michelle Compaore, August M. Abdon Kinglo, Mahamadou Koita, Yacouba Konate, Hela Karoui

165. Groundwater Quality of the Shallow Alluvial Aquifer in the Garonne Valley
Nazeer Asmael, Michel Franceschi, Alain Dupuy

166. The use of strontium isotopes for investigation of the water balance at a riverbank filtration site (Śrem well-field, Poland)
Krzysztof Dragon, Roksana Kruc-Fijalkowska

GROUNDWATER QUALITY ACROSS SCALES: FROM LAB TO FIELD, FROM SITE TO MEGASITE

8. In Situ Remediation of a High-Concentration TCE Plume at a Former Chemical Works in the UK
Jack Shore

42. How to explain high fluoride, boron and vanadium contents in groundwater of the Cuvelai Etosha Basin in Namibia
Roland Bäumle, Georg Houben, Kevin De Vriendt

46. Dissolved Se in a depleted limestone aquifer in Jordan: occurrence and origin.
Frank Wagner, Mohammad Al-Hyari, Dennis Kraemer

71. Assessment of the Quality of groundwater consumed by residents of the district of Saraba from of Darou khoudoss City (Thiès, Senegal).
Alassane Thiam, Fatou Cisse

84. Hydrochemical characterization of groundwater around a marble mine in Southwestern Nigeria
Kehinde Olojoku Ibrahim, Mumeen Adebayo Yusuf

154. Hydrogeochemistry of Shallow Groundwater and Suitability to Irrigation: The Case of the Karfiguéla Paddy Field in Burkina Faso
Compaore Hillary Marie Michelle

168. Seal integrity assessment of monitoring wells using fiber optic distributed temperature sensing
Mitchel Brown, Jonatan Kennel, Jonathan Munn, Carlos Maldaner, Beth Parker

THURSDAY AFTERNOON: POSTER

MODELLING GROUNDWATER QUALITY

12. The configuration of volcanic aquifers and the context of groundwater flow in the different massifs of the island of Grande Comore: use of 3D geological modelling and piezometry
Lhad Sosote Ibrahim, Moctar Diaw, Fatou Diop Ngom, Ibrahima Mall, Konstantinos Chalikakis, Remi Valois, Adriano Mayer

25. Predicting the occurrence of geogenic manganese in groundwater in Southeast Asia
Joel Podgorski, Michael Berg

32. Spatial Modeling of Geogenic Arsenic Hazards in Groundwater in Taiwan
Kai-Yun Li, Joel Podgorski, Ching-Ping Liang, Jui-Sheng Chen, Michael Berg

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