

Welcome to the session HS8.1.1.

## Modern challenges in deterministic and stochastic subsurface modeling across multiple scales

14.00-14.05		Welcome and Introduction
14:05-14:11	D433	Hydrogeochemical modelling of mineral precipitation potentials in carbon capture and storage (CCS) <b>Ulrich Maier</b> , Alexandru Tatomir, and Martin Sauter
14:11-14:17	D435	High-end solution techniques and accurate reference solutions: towards a community-wide benchmarking effort for stochastic inverse modeling of groundwater flow <b>Wolfgang Nowak</b> , Teng Xu, Sebastian Reuschen, Harrie-Jan Hendricks Franssen, and Alberto Guadagnini
14:17-14:23	D436	Geostatistical representation of multiscale heterogeneity of porous media through a Generalized Sub-Gaussian model <b>Alberto Guadagnini</b> , Monica Riva, Shlomo P. Neuman, and Martina Siena
14:23-14:29	D438	Dispersion in small-scale discrete fracture networks with internal fracture roughness: Challenges for site-scale modelling <b>Andrew Frampton</b> and Liangchao Zou
14:29-14:35	D439	Reactive transport in porous media with local mixing limitation: A Lagrangian modeling approach Guillem Sole-Mari, <b>Daniel Fernández-Garcia</b> , Xavier Sanchez-Vila, and Diogo Bolster
14:35-14:41	D440	Natural springs' protection and probabilistic risk assessment under uncertain conditions <b>Emanuela Bianchi Janetti</b> , Monica Riva, and Alberto Guadagnini
14:41-14:47	D442	Hydrogeological modelling applied to mineral exploration <b>Valérie Plagnes</b> , David Quirt, Antonio Benedicto, and Patrick Ledru
14:47-14:53	D443	Numerical benchmark study for flow in highly heterogeneous aquifers <b>Nicolae Suci</b> , Cristian Daniel Alecsa, Imre Boros, Florian Frank, Peter Knabner, Mihai Nechita, Alexander Prechtel, and Andreas Rupp
14:53-14:59	D444	Impact of Flow Connectivity on the Interpretation of Pumping Test Data <b>Buse Yetiști</b> , Nadim K Copty, Paolo Trinchero, and Xavier Sanchez-Vila

14:59-15:05	D446	<p>Influence of distribution co-efficient on radionuclide transport modelling of uranium from a tailings pond in northern Karnataka, India</p> <p><b>Bhavya Ravinder</b> and Elango Lakshmanan</p> <p>An assessment of soil moisture in the MARINE flash flood model using in situ measurements, reanalysis and satellite derived estimates</p>
15:05-15:11	D447	<p><b>Judith Eeckman</b>, H�el�ene Roux, Bertrand Bonan, Cl�ement Albergel, and Audrey Douniot</p> <p>Estimation of distributed parameters at regional scale by history-matching of a multi-layered sedimentary aquifer</p>
15:11-15:17	D450	<p><b>Ryma Aissat</b>, Alexandre Pryet, Marc Saltel, and Alain Dupuy</p> <p>Estimation of groundwater recharge from time series modeling of groundwater levels in non-linear systems</p>
15:17-15:23	D452	<p><b>Raoul Collenteur</b>, Steffen Birk, Gernot Klammler, and Mark Bakker</p>
15:23-15:29	D451	<p>Using the adjoint state variable for parameter estimation by inverse methods with parsimony.</p> <p><b>Philippe Ackerer</b> and Fr�ed�eric Delay</p>
15:29-15:35	D449	<p>Development of the stochastic approach to groundwater hydrology: a personal account of G. de Marsily contributions.</p> <p><b>Jes�s Carrera</b></p>
15:35-15:41	D437	<p>The impact of Ghislain de Marsily in Nuclear Waste Management</p> <p><b>Jordi Bruno</b></p>
15:41-15:45		<p>Wrap up/CIAO</p>