

Conference Sessions (per 1 April 2012)

The following conference sessions are planned for ORAL presentation:

Session A: Hydrogeological structure of fractured rocks

Session B: Groundwater flow in fractured rocks

Session C: Chemical, physical and isotope properties of groundwater in fractured rocks

Session D: Groundwater prospecting, drilling and well construction in fractured rock environment

Session E: Investigation and interpretation methods in fractured rock environment

Session F: Modelling in fractured rock aquifers

Session I: Groundwater protection in fractured rock environment

Abstracts accepted for ORAL PRESENTATION

The green marked orals are submitted by members of Scientific Advisory Committee

Session A: Hydrogeological structure of fractured rocks

36 Vittecoq	Benoit	FR	Heterogeneity of hydraulic parameters and compartmenting of a volcanic aquifer revealed by long duration pumping tests: example of the Lamentin aquifer – Martinique FWI
46 Antonellini	Marco	IT	Architecture and fluid flow properties of faults and associated structures in different rock types: examples from outcrops.
83 Comte	Jean-Christophe	UK	Conceptual modelling of Irish poorly productive hard rock aquifers using integrated hydrogeological approaches – Application to Precambrian metamorphic complexes in Northwest Mayo, Ireland
91 Pino	Daphne	CA	Joint system and tectonic analysis of a crystalline bedrock aquifer: case study of the Kenogami uplands, Quebec, Canada
120 ROQUES	CLEMENT	FR	Hydrogeological and Geochemical characterization of a deep hard-rock aquifer (Saint-Brice, French Brittany)
147 Cucchi	Franco	IT	Water flow in a diffuse underground karst context. The case of the Classical Karst (Italy-Slovenia)
163 Lachassagne	Patrick	FR	The conceptual model of weathered hard rock aquifers. Its application to the survey, management, modelling and protection of groundwater
170 BARROCU	Giovanni	IT	Groundwater and integrated water resources management in hard rock areas

Session B: Groundwater flow in fractured rocks

6	Mann	Vanessa	CA	Comparison of Hydraulic and Mass Balance Apertures of Bench-Scale Vertical Fracture Samples
7	Klepikova	Maria	FR	A methodology for using borehole temperature-depth profiles under ambient, single and cross-borehole pumping conditions to estimate fracture hydraulic properties
14	Montenegro	Héctor	DE	A Withdrawal-Injection-Scheme at a Large Excavation Site Under Uncertainty from Karst-Conduit Dominated Groundwater Flow
55	Hartley	Lee	UK	Hydrogeological Discrete Fracture Network modelling to support site investigations for a final repository for spent nuclear fuel in Sweden
62	Krusic-Hrustanpa	Irena	AU	Conceptual Model of Groundwater Flow in a Fructured Basalt Aquifer, South-east Australia
73	Chou	Po-Yi	TW	Spatial distribution of fracture transmissivity of the hard rock aquifer in Central Taiwan: methods of interpretation and the results to date
80	Petitta	MARCO	IT	Groundwater recharge and fracture deformation in the carbonate Gran Sasso Aquifer (INFN underground laboratories, Central Italy)
90	Bauer	Florian	DE	An approach to define the relationship between waterflow direction and tectonics in the catchment of Barada Spring, Syria, using different geophysical and remote sensing methods
96	Rouleau	Alain	CA	HYDROGEOLOGICAL PROCESSES AT UNDERGROUND MINE SITES : RESEARCH RESULTS AND OPPORTUNITIES
103	Hajnal	Géza	HU	Hydrogeological Investigations of the Buda Castle Hill
108	Bricker	Stephanie	UK	A GEOLOGICAL FRAMEWORK FOR HYDROGEOLOGICAL UNDERSTANDING – MODELLING THE MIDDLE JURASSIC LIMESTONE SUCCESSIONS OF THE COTSWOLDS
121	Gargini	Alessandro	IT	MONITORING AND MODELLING GROUNDWATER FLOW SYSTEMS IN HARD ROCK
123	Rai	S	IN	AQUIFERS: EXPERIENCES FROM NORTHERN APENNINES (ITALY)
127	Blum	Philipp	DE	Exploring volcanic rocks for groundwater
				Fracture flow simulations using satellite images
129	David	Katarina	AU	Use of several different methods for characterising fractured rock aquifer, case study Kempfield, NSW, Australia
138	PONTIN	ALESSANDRO	IT	Interactions between (partly) karstified and fractured aquifers revealed by continuous monitoring at springs (southern alps, feltre, italy)
144	Fendeková	Miriam	SK	Estimation and evaluation of groundwater drought in fractured environment
155	Hokr	Milan	CZ	Tunnel inflow - fitting the field observations with hybrid model of discrete fractures and continuum

Session C: Chemical, physical and isotope properties of groundwater in fractured rocks

86 jaunat	Jessy	FR	Flow conditions, geochemistry and residence time of groundwater from a gneissic aquifer. Case study of the Ursuya Mount, Northern Basque Country (France)
106 Henry	Tiernan	IE	The Hydrogeology of the Tynagh Mine Area, Galway, Ireland
140 Frengstad	Bjorn	NO	Uranium distribution in groundwater from fractured crystalline aquifers in Norway
151 Strauhal	Thomas	AT	Hydrogeochemical characteristics of porous and fractured aquifers in metamorphic rocks (Tyrolean Alps, Austria)
174 Balderer	Werner	CH	Short time behaviour of the thermal water of the Brigerbad Thermal Spring South-western Switzerland with respect to chemical and fluorescent properties of the outflowing water

Session D: Groundwater prospecting, drilling and well construction in fractured rock environment

15 Davies	Jeffrey	UK	Groundwater Occurrence in Weathered and Fractured Precambrian Crystalline Basement – Compare and Contrast Studies in Tanzania, Zimbabwe and the U.K. Channel Islands.
52 Chambel	Antonio	PT	Groundwater prospecting, drilling and well construction in hard rocks in semi-arid regions: an overview
75 Lyle	Sarah	UK	Integrated geotechnical-hydrogeological field programmes in hard rock open-pit mining environments
78 Tessema	Abera	ZA	The relationship between Lineaments and Borehole yield around Mafikeng Town, Northwest Province, South Africa
150 Ball	David	IE	Successful Water Supply Borehole Design, Construction and Supervision in Fractured Rocks

Session E: Investigation and interpretation methods in fractured rock environment

23 Dassargues	Alain	BE	How tracer tests simulations strongly constrain flow and solute transport models in fractured chalk aquifers (invited)
49 Piscopo	Vincenzo	IT	Sustainable yield of fractured rock aquifers: the case of crystalline rocks of the Serre Massif (Calabria, southern Italy)
50 Neuman	Shlomo	US	Lessons learned from analyses of pneumatic pressure experiments in unsaturated fractured tuffs near Superior, Arizona
51 Mayo	Alan	US	Using heat flow and radiocarbon ages to calculate the recharge zone of thermal groundwater systems in granitoid rocks
60 Libby	Jill	US	Characterization of Water Contributing Fractures intersecting a Well in Crystalline Bedrock through Monitoring Changes in a Tracer Profile during Slug Test Recovery

72	Zhan	Shang-Shu	TW	Permeability of fracture planes and fractured rock mass determined from hydrogeological in-situ tests.
79	Green	Adrian	UK	Hydrogeological characterisation of a coastal fractured aquifer by the analysis of tidally induced groundwater fluctuations
87	Richard	Sandra	CA	Estimating and analysing the transmissivity of fractured rock aquifers in the Saguenay-Lac-Saint-Jean region, Quebec, Canada.
99	Pehme	Peeter	CA	Steps in the Evolution of the Discrete Fracture Network Approach for Investigating Contaminated Sites on Fractured Sedimentary Rock
102	Blandford	Neil	US	A Case Study of Exploration and Characterization of Deep Fractured Rock Aquifers for New Groundwater Development, New Mexico, U.S.A.
118	Katz	Yoram	IL	Dewatering near coastline under fractured rock conditions - Rambam hospital, Israel
134	Zeeb	Conny	DE	Critical review of different sampling methods for discrete fracture networks
135	Hsieh	Paul	US	Analysis of aquifer tests in dipping sedimentary rock strata
146	Winkler	Gerfried	AT	Scale dependent hydraulic investigations of heterogeneous complex rock masses (Semmering area, Austria, Eastern Alps)
166	Stasko	Stanislaw	PL	Hydrograph separation as a tool for hard rock hydraulic parameter estimation
171	Sharp	John	US	Prediction of fracture roughness aperture, and other hydraulic properties: Is upscaling of flow and transport possible?

Session F: Modelling in fractured rock aquifers

12	Lin	Lixiang	ZA	Estimation of hydraulic properties of a fault-bounded fractured aquifer in the Table Mountain Group (TMG), South Africa
34	Maréchal	Jean-Christophe	FR	Water inflows into a deep tunnel through the Reunion volcano: observation and modeling
53	ROUQUET	Simon	FR	Development and application of a surface water and groundwater modelling tool o a complex recent volcanic hydrosystem (Volvic, France)
56	Herrmann	Frank	DE	Conceptual modelling of groundwater piezometric surfaces in fractured rock formations of Central Europe
58	Benoit	Dewandel	FR	Upscaling and regionalizing hydraulic conductivity and efficient porosity at watershed scale in crystalline aquifers
88	Lang	Ulrich	GR	Modelling Flow and Transport Processes in Fractured and Karstified Aquifer System of Stuttgart – Isotopic Study and Development of Reactive Transport Model for Chlorinated Hydrocarbon Contamination
94	Frampton	Andrew	SE	Modelling sparsely fractured rock using flow log data
112	Schoepfer	Christoph	DE	Groundwater management plan for the Luxembourg Sandstone

125	Holland	Martin	ZA	Numerical modelling of flooded deep mines in the Evander gold basin: Impact assessment and dewatering scenario's.
132	Missteart	Bruce	IE	Analysis of flow pathways in fractured bedrock using a lumped modelling approach
145	Larsson	Martin	SE	An empirical relationship between single-fracture heterogeneities & transport parameters and its application to solute migration in fractured networks
152	Normani	Stefano	CA	Methodology to Generate Orthogonal Fractures from a Discrete, Complex and Irregular Fracture Zone Network
158	La Vigna	Francesco	IT	Application of a "quasi dual porosity approach" in the groundwater model of a travertine aquifer in central Italy.
168	Niemi	Auli	SE	Multi-scale flow and transport in fractured rocks: channeling persistence, flow compartmentalization, and effective flow-wetted surfaces
169	Blessent	Daniela	CA	Multi-Scale Hydrogeological Modeling in Crystalline Bedrock - Application to Olkiluoto Island, Finland
172	Therrien	Rene	CA	Recent developments in modelling coupled fluid flow and transport processes in fractured porous media

Session I: Groundwater protection in fractured rock environment

20	Neilson-Welch	Laurie	CA	Modelling groundwater capture zones for mountain headwater streams in fractured rock
105	Anton	BRANCELJ	SI	Epikarst – unknown and fragile environment rich in aquatic organisms
131	Molson	John	CA	Capture Probability and Groundwater Age Simulations for a Water Supply Well in Fractured Dolomite using a 3D Discrete Fracture Network Model
143	Tröger	Uwe	DE	Bad Brückenau – a case study of a fractured sandstone (Middle and Lower Bunter)
148	Gaut	Sylvi	NO	Groundwater vulnerability related to technical quality of Norwegian groundwater wells in crystalline bedrock
164	Rudolph-Lund	Kim	NO	A comparative study of groundwater flow in fractured media under 40 Norwegian airports

The following conference sessions are planned for POSTER presentation:

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Session F: Modelling in fractured rock aquifers

Abstracts accepted for POSTER PRESENTATION

Session A: Hydrogeological structure of fractured rocks

2	Zviadadze	Ucha	GE	About the question of hydrogen sulfide origin in ground waters
45	Antonellini	Marco	IT	Theoretical Constraints on Fracture Aperture Based on Linear Elastic Fracture Mechanics: the importance of stress concentration and lithology.
48	Diaz General	Elizabeth	IT	Fault development in Monte Conero (Italy) as a process of creating fracture porosity and permeability in carbonate rock.
82	Guihéneuf	Nicolas	FR	Compartmentalization of weathered-fractured crystalline aquifer in semi-arid region: an hydrodynamic approach
93	Flynn	Raymond	UK	Characterising the contribution of groundwater to stream flow in a granitic catchment, Oughterard, Co. Galway, Ireland.
115	Celligoi	Andre	BR	Hydrogeologic connotation of E-W structural lineaments in the northern Paraná State, Brazil.

Session B: Groundwater flow in fractured rocks

5	Ben,triou	Abdelmhak	DZ	Influence verticality of the well on the hardness of the rocks
17	Müller	Edith	AT	Results of simultaneous fluid logging measurements in the area of Wildbad Einoed (Styria, Austria)
27	Allen	Diana	CA	Defining Groundwater Catchment Boundaries in Mountain Regions
44	Metcalfe	Meredith	US	Deciphering groundwater trends in the fractured bedrock using GIS for resource management and planning
74	Agarwal	PM	IN	Flow of water in fractured rocks

101 Blaise	KOFFI	CI	Hydrodynamic study of a fractured aquifer in the context of the implementation of a modern landfill: Application of remote sensing and geotechnical method on the site of Kossihouen in CÔTE D'IVOIRE (WEST AFRICA)
107 Abdelaziz	Ramadan	DE	Analytical and Numerical modeling flow in fractured gneiss aquifer
136 OZ	Basak	SI	The Influence of Hydrogeology on Selected Alpine Springs in Slovenia
139 Liebel	Heiko	NO	Thermal response testing in fractured aquifers with groundwater flow
156 Grehs	Sandor	BR	Hydrogeological features influencing Pantanal Wetland, Brazil-Bolivia-Paraguay
175 Jelmert	Tom	NO	Production capacity of wells in reservoirs with fractional (non-integer) spatial dimensions

Session C: Chemical, physical and isotope properties of groundwater in fractured rocks

18 HUNEAU	Frederic	FR	Definition of a target resource for the drinking water supply of an African capital. Hydrogeochemical characterization of the carbonate aquifers of the Bangui urban area (Central African Republic). Geochemical and environmental isotope tracers to assess anthropogenic impact in an area of thermal springs
26 Marques	Jose	PT	New insights on Melgaço - Messegães CO ₂ -rich cold mineral waters (NW Portugal) ascribed to isotopes and geochemical composition
33 Carreira	Paula	PT	Comparing hydrogeological properties of volcanic aquifer by combining piezometric and hydrochemical data: the Martinique Island example
37 Vittecoq	Benoit	FR	Hydrochemistry and ¹³ C DIC as tracers of natural and anthropogenic influences on karst groundwater geochemistry in Nandong, Southwest China
47 jiang	yongjun	CH	
63 Uppin	Marge	EE	Carbonate rocks as the natural sources of boron and fluoride-rich groundwater in western Estonia The Hydrochemical Profile of Subsurface flows reflected by drip water in the Velika Pasica Cave (Slovenia)
76 Liu	Allen Wei	SI	
95 Afonso	Maria Jose	PT	Groundwater in urban areas (NW Portugal): hydrogeological GIS mapping and radon susceptibility Modification of Standard Piper Diagram Approach to Assess Flowpaths in a Fractured Basalt Aquifer System
122 Cosme	Frederic	AU	
133 Nuhovic	Sibela	YU	The fissured aquifer in ultramafic complex of Maljen and Suvobor (Western Serbia) - aquifer of hyperalkaline groundwater
142 Fendekova	Miriam	SK	Chemical and isotopic parameters of groundwater in neovolcanic rocks of Slovakia

180 Murad	Ahmed	AE	Groundwater quality assessment of fractured carbonate aquifer of the northern part of the United Arab Emirates (UAE)
181 Murad	Ahmed	AE	Groundwater quality and source in fractured carbonates from the United Arab Emirates
185 Ismail	Esam	AT	Evaluation of Groundwater Quality for Drinking and Irrigation Purposes in West Tahta Area, Sohag Governorate, Egypt

Session D: Groundwater prospecting, drilling and well construction in fractured rock environment

21 Ariyo	Stephen	NG	SIGNIFICANT OF GEOLOGY AND GEOPHYSICAL INVESTIGATIONS IN GROUNDWATER PROSPECTING. A CASE STUDY FROM HARD ROCK TERRAIN OF SOUTHWESTERN NIGERIA.
97 Bushner	Greg	US	An Overview and Comparison of Deep Groundwater Exploration in Fractured Rock Aquifers in Two Semi-Arid States, USA
98 Gopinath	Girish	IN	Investigation on potential of a fractured aquifer for water demands of perennial crops - A Central Kerala River Basin Quintessence
110 CHIRENJE	EMMANUEL	ZA	The Integrated Use of Magnetics and ERT in borehole siting at Lesedi School, Pretoria, South Africa
119 Nuhovic	Sibela	YU	FISSURED-KARSTIC AQUIFER IN EARLY TRIASSIC LIMESTONE OF ZLATIBOR MOUNTAIN (WESTERN SERBIA) - SUBSTANTIAL CAPACITY AND TOP QUALITY GROUNDWATER AQUIFER

Session E: Investigation and interpretation methods in fractured rock environment

8 Zenner	Matthias	DE	Various Displacement Well Response Testing: A Well Performance Testing Methodology to Identify Nonlinear Formation-Controlled Flow
30 Yoxas	Gerasimos	GR	Use of geological parameters analysis to evaluate groundwater vulnerability assessment in fractured rocks; a case study of Mantoudi - Central Euboea Island (Hellas).
38 Johnston	Colin	AU	Confounding effects on the characterisation of multi-phase liquid transmissivity for LNAPL remediation in fractured basalt
66 Kalantari	Nasrollah	IR	Physico-chemical characteristics as a tool to determine feeding areas of the Bibitalkhon spring in the southwest of Iran
84 Bakar	Ürün	TR	Analysis of One Dimensional Transient Flow in a Composite Aquifer
85 Comte	Jean-Christophe	UK	A combined Dipole-Dipole/multi-Gradient ERT array optimized for hydrogeological modelling of hard rock aquifers
100 Chou	Po-Yi	TW	Lithological and hydrogeological characteristics of the regolith-fractured bedrock system in Taiwan: a local scale interpretation with a case study

137 Koch	Michaela	AT	Hydraulic studies on drill core samples of faulted hard rocks with triaxial permeability cell tests
182 Baker	Haydar	AE	Identification Fracture Zones by Magnetic and Resistivity Methods - A Case Study

Session F: Modelling in fractured rock aquifers

24 Suk	Heejun	KR	Practical implementation of new particle tracking method and its application to random-walk particle tracking
61 Chlebica	Dariusz	US	Resolving Fractured Bedrock Aquifer Flow and Sustainability Issues Using an Equivalent Porous Media Model.
64 Nocchi	Monica	IT	Numerical flow model of the Mt. Amiata volcanic aquifer (Italy)
111 M. Nick	Hamid	NL	Modeling reactive solute transport in fractured media, seawater intrusion
126 Yang	Zhibing	SE	Simulating immiscible fluid invasion in rough-walled fractures: invasion-percolation and continuum models
153 Piccinini	Leonardo	IT	GROUNDWATER FLOW NUMERICAL MODELING TO FORECAST TUNNEL INFLOWS : THE CASE OF A ROAD TUNNEL INSIDE A FRACTURED ROCK MASS AQUIFER (SOUTHERN ALPS, ITALY)
173 Wendland	Edson	BR	Simulation of Groundwater Flow on Porous Fractured Rock using the Analytic Element Method
183 Gebremichael	Merhawi	ET	Environmental isotopes and numerical groundwater flow modeling to understand the groundwater flow dynamics in Raya valley, Northern Ethiopia.