



**T5.1 - Hydrogeology and Hydrochemistry of Arid and Semi-Arid Africa: A Tribute to W. M. Edmunds**      *Date* **Monday, 29 August 2016**      *Time* **14:00** to **15:30**  
*Chair*      *Room* **MR 2.64 - 2.66**

<b>Times</b>		<b>Paper # Title</b>	<b>Speaker</b>
14:00	14:15	4748 Groundwater recharge in Africa: identifying critical thresholds	Prof Tamiru Abiye
14:15	14:30	196 Groundwater exploration using electromagnetic frequency domain and electroseismic sounding methods in Kalahari sands and Karoo Sequence in Zimbabwe.	Mr. Joseph M Zulu
14:30	14:45	2599 Hydrogeological investigation to protect the Itawa Spring in Ndola, Zambia	Dr. Tobias El-Fahem
14:45	15:00	2600 Groundwater Resources Management for Lusaka Water Supply, Zambia	Dr. Tobias El-Fahem
15:00	15:15	3852 Deep Groundwater Systems in Southern Africa - from occasional findings towards an exploration strategy -	Dr. Thomas Himmelsbach
15:15	15:30	525 Groundwater resources of Burundi. New elements and decision making tools.	Dr. Alexis Gutierrez

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16:00	16:15	2188 Regional exploration technique of groundwater resource in the Precambrian areas of Mozambique through an integration of Topographic and Geophysical data	Mr. Luis Magaia
16:15	16:30	4142 An assessment of groundwater contamination at the Empangeni and Richards Bay landfill areas, Kwazulu-Natal, South Africa	Dr. Vetrinurugan Elumalai
16:30	16:45	4614 Groundwater Resource Assessment of the deep confined Peninsula Aquifer in Blossoms (Oudtshoorn), Western Cape, South Africa	Mr. David McGibbon
16:45	17:00	4605 Cape Flats Aquifer and False Bay - opportunities to change	Mr. David McGibbon
17:00	17:15	4762 Investigating the hydrogeological conditions of the deep formation in the southern Karoo Basin – Case study of the KARIN-CIMERA KFZ-1 hole	Mr. Fanie De Lange
17:15	17:30	4840 Groundwater resources of the Danakil Depression (northeastern Ethiopia) – hydrogeology in the hottest place on Earth	Mr. Dylan Blake
17:30	17:45	5066 Combination of geological and geophysical data for the determination of aquifer geometry in a complex hydrosystem. Application to Plio-Quaternary aquifer Dradere Soueire basin (Moulay Bouselham Region - North Western Morocco).	Mr. Issam Bougarn

Times	Paper # Title	Speaker
	3023 Groundwater Potential Zoning in Turkana County, Kenya—A lithological and Structural geology approach	Mr. Edward Kipkoech
	4860 Investigation potential karstic water resources in shahroud ,Iran Using Combined Fuzzy-AHP , AHP Methods.	Dr. RAZIEH AKBARI JONOSH
	2673 Groundwater contamination caused by industrial waste in Waluj MIDC Area, dist. Aurangabad (M.S)	Prof. Ashok Tejankar
	503 Hydrogeochemistry of Ukraine's groundwater system and its impact on public health	Prof. Georgii Rudko

<b>Times</b>		<b>Paper # Title</b>	<b>Speaker</b>
08:00	08:15	5516 Towards Integrated Transboundary Groundwater Management in Southern Africa - The Case of the Ramotswa Aquifer Shared between South Africa and Botswana	Y Altchenko
08:15	08:30	4423 Experimental Studies on the Smooth Parallel Plate Model, Addressing the Validity of the Cubic Law under Conditions of Variable Saturation.	Mr. Brendon Ronald Jones
08:30	08:45	4338 Flow regime comparison of a single clean smooth parallel fracture with and without overlying material in variably saturated conditions	Mr. Brendon Jones Luke Brouwers
08:45	09:00	2833 Modeling of radionuclide migration in fractured rock aquifer and assessment of groundwater contamination risk	Dr. Irina Galitskaya
09:00	09:15	5291 Recognizing spatial heterogeneity in aquifer distributions and characterizing groundwater dynamics in NW India	Prof. Rajiv Sinha
09:15	09:30	4055 Groundwater recharge in the discharge area of a semi-arid catchment	Prof. Xiao-Wei Jiang
09:30	09:45	840 Diel cycling, flux, and fate of HCO <sub>3</sub> <sup>-</sup> in a typical karst spring-fed stream of southwestern China	Prof. Cheng Zhang
09:45	10:00	914 Modeling Groundwater Flow and Dynamics of the Dendron Area, Limpopo River Basin, South Africa	Dr. Girma Yimer Ebrahim

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10:30	10:45	75 Geoinformatics for Sustainable Groundwater Resource development	Dr. Arumugam Jothibas
10:45	11:00	5515 Global Food Production - Share from Sustainable and Unsustainable Groundwater Use	Dr. Karen Grothe Villholth
11:00	11:15	2030 The importance of information management systems (IMS) to good governance of shared groundwater resources	Mrs. Daniela Benedicto
11:15	11:30	870 GIS based modelling of groundwater vulnerability: a case study of Birmingham urban unconfined aquifer, United Kingdom	Dr. Abraham Thomas
11:30	11:45	912 Estimating Groundwater Availability at Catchment Scale using Streamflow Recession and Instream Flow Requirements of Rivers in South Africa	Dr. Girma Yimer Ebrahim
11:45	12:00	2757 GRACE gravity approach in estimating changes in Total Water Storage in the Vaal River Basin, South Africa.	Mr. Khuliso Masindi

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14:00	14:15	3871 KINDRA Project: classification and inventory of groundwater research and knowledge in Europe	Dr. Isabel Manuela Fernandez Fuentes
14:15	14:30	3983 Submarine Groundwater Discharge in SW coast of India and its implications	Dr. Suresh Babu DS
14:30	14:45	5513 Mapping Irrigation Potential from Renewable Groundwater pan-Africa – an integrated approach	Y Altchenko
14:45	15:00	5544 Coastal Aquifers Management in Algarve – Portugal	Edite Reis
15:00	15:15	5601 Investigating and incorporating local scale heterogeneity for MAR in karst aquifers through a hydro-geophysical approach	Dr. Tanvi Arora

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16:00	16:15	2968 Chemical and isotopic evolution of dissolved inorganic carbon in groundwater of the Okavango Delta, Botswana	Dr. Elliot Atekwana
16:15	16:30	3004 Assessment of impact on the groundwater quality due to solid waste disposal site southeast of Pune City, Maharashtra, India	Dr. Gajanan Wagh
16:30	16:45	2229 Hydrogeochemistry and genesis analysis of the geothermal springs in Arxan, Northeastern China	Ms. Xiaomin Gu
16:45	17:00	4427 Evaluation of Impact of Geomorphic Controls on the Groundwater Quality of Udupi District, Southwest Coast of India	MS SRUTHI B
17:00	17:15	2234 Groundwater circulation and hydrogeochemical evolution in a typical alluvial-lacustrine plain of Qaidam Basin, Northwestern China	Mr. Yong Xiao
17:00	17:15	2323 Groundwater Quality study of Shendra & Chikalthana MIDC area in Aurangabad District (M. S.), India	Prof. Ashok Tejankar

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	4844 Groundwater recharge quantification from historical rainfall records and salinity profiling in the RAMSAR listed Verlorenvlei catchment	Ms. Anya Eilers
	1235 The importance of scale in studying interactions between surface and hyporheic zone processes	Dr. Oana Teodora Moldovan
	659 Geochemical assessment of disposal sludge from water treatment plant (WTP) on soil and underground aquifer, Brazil	Dr. Rosely Imbernon
	522 Comparison of Atmospheric CO <sub>2</sub> Consumption of Carbonate Rock Weathering with Silicate Rock One in the Pearl River Basin, China	Prof. Zhongcheng Jiang
	5354 Geophysical delineation of AMD in the Cradle of Humankind	Dr. Michael van Schoor
	113 3D Numerical Groundwater Flow Modeling in Kohat Sub Basin, Northwest Himalayan Fold & Thrust Belt Pakistan	Mr. Majid Khan
	1951 Hydrogeochemistry of Groundwater in a part of Alluvial terrain in Central India	Prof. Laxmi Prasad Chourasia
	4654 Determination of groundwater sustainable yield using numerical modelling approach	Dr. Lixiang Lin
	1637 The development of a sampling protocol for radioactive elements in a fractured rock aquifer of South Africa	Dr. Gaathier Mahed
	316 Alarming Nitrate contents in groundwater in semi-arid region in South India: Analyzing for its vulnerability	Dr. Pagadala Damodaram Sreedevi
	3680 Groundwater role on the ecological preservation of the Biguglia lagoon (Corsica, France)	Dr. Emilie Garel Pr. Frederic Huneau
	1564 Adaptation of RDM for karst groundwater management in Southwest China	Ms. LICHAO YANG
	4374 Construction of calibration facilities of slim hole logging system for aquifer characterization	Dr. Seho Hwang



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	88 Study on hydrogeological model of leakage of Sanyou Cave inscription area of Yichang City, China	Dr. Deshan Cui
	15 Stable Isotope Technique To Discern Source And Origin Of Contamination In Groundwater Of Bangalore City, Karnataka, India	Dr. R.K. Somashekar
	4421 Impact of water level fluctuations and major ions on the quality of groundwater in Udupi District, Southwest coast of India	Dr. Udaya Shankara Harikripa Narayana
	4889 Modelling the connection between groundwater abstraction and recharge to quantify baseflow for a RAMSAR listed wetland in Western Cape, South Africa	Mr. Andrew Watson
	2031 FREEWAT a water management tool enhancing the participatory approach in the Stampriet aquifer system region	Mrs. Daniela Benedicto
	1039 Distribution of Fe, Mn, Zn and As in groundwater of Slavonia and Baranja Region - Croatia	Dr. Tamara Marković
	5274 A spatial model of groundwater chemical composition in Slovenia in GIS environment	prof. Marko Komac
	4929 Characterisation of deep groundwater in the Karoo Basin through the use of warm springs as proxies	Dr. Jodie Miller
	187 Developing capacity of groundwater and environmental protection in Kyrgyz Republic	Mr. Nikita Latyshev
	2223 Hydrochemical Characterization and Genesis of the Jinjiang Springs in Arxan, Northeastern China	Professor Yali Cui
	1422 Groundwater Dynamic in a period of drought - alluvial plain of Mogi Guaçu River, Sao Paulo, Brazil.	Dr. Sueli Pereira
	2493 Combining groundwater vulnerability and hydrogeomechanics mapping in hydromineral systems (Caldas da Cavaca, Central Portugal)	Prof. M.J. Afonso
	553 Over Exploitation of Ground Water , It's impact on Aquifer System and Rural Water supply Schemes in Madhugiri Taluk , Tumkur District , Karnataka	Mrs. Hemamalini Rajanna
	97 Delineation of low Order Palaeochannels of Lost river Saraswati in the Indian desert	Prof. Kanhaiya Lal Shricastava
	1132 Drought effects on groundwater system over rural area in S. Korea	Dr. Sung-Ho SONG
	3211 South Africa's current analytical capabilities for stable isotopes with reference to compliance monitoring for hydraulic fracturing and future legislative requirements	Ms. Danita Hohne
	4345 Structure of weathered and fractured peridotites of New Caledonia: from field data to simplified modelling	Ms. Julie Jeanpert Marion Iseppi
	5169 Overview of Groundwater in Central Highveld Region, South Africa	Dr. Haili Lin
	1844 A methodology to assess the movement of hydrocarbons in the subsurface and the remediation thereof	Ms. Sascha Roopa
	5228 Analogy of the mineral systems approach with the new proposed groundwater vulnerability approach: Case study of Highveld-Ermelo-Witbank coalfields, South Africa	Mr. Emmanuel Sakala
	2335 Estimation of well efficiency after well treatment: case history in S. Korea	Dr. Sung-Ho Song
	3222 Impact of climate change on hydrodynamics of coastal aquifer Gujarat, India	Dr. Devinder Kumar Chadha
	4305 Laboratory investigations of iron and manganese precipitates formed during in-situ iron removal by ozonation: Understanding the effects on the Atlantis Aquifer permeability	Ms. Jani Van Gend
	2490 The role of hydrogeological and contamination sources inventories in groundwater management: Porto City (NW Portugal)	Prof. M. J. Afonso

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	1040 Water quality of groundwater source in Gacko polje - Croatia	Dr. Tamara Marković
	609 Geothermometrical modelling of a carbonate-evaporitic thermal system	Ms. Mónica Blasco
	1825 Optimization of an Artificial Recharge- Pumping System for Water Supply in the Maghaway Valley, Cebu, Philippines	Mr. Nafyad Serre Kawo
	2231 The rational development and exploitation of groundwater in the Hutuo-river alluvial fan in the North China Plain	Prof. Jingli Shao
	5326 Structural and groundwater mapping using geophysical methods over shear zones in the Namaqua Metamorphic Province	Mr. Fhatuwani Matome Adolph Sekiba
	4506 Determination and delineation of hydraulic parameters of the Ohangwena Groundwater System, Cubango Megafan, Northern Namibia	Mr. Christoph Lohe
	3977 Optimization of Water conservation structures in over-urbanized area in the suburbs of Delhi, India	Ms. Nidhi Jha