

Sunday, October 10

Al Murajjib Hall

Modeling and Groundwater Hydraulics

- 13:40 – 14:00 Commonality Between Mar Water Drainage and Gas Oil Gravity Drainage: The Case of a Fractured Rock
Kacimov, Anvar; S.Al-Jabri; S.Schoofs; S.Sufyan
- 14:00 – 14:20 Groundwater Management in Bribie Island for Urban Expansion
Arunakumaren, Jerome ; Peter Evans; Martin Doré; Troy Kasper
- 14:20 – 14:40 Maximizing Recovery Rates in Unconfined Aquifers
Herrmann, Rolf
- 14:40 – 15:00 Modelling the Regional Impacts of Multiple MAR Schemes on the Northern Adelaide Plains
Martin, Russell; B. Barnett; C. Pitman; C. Kaufmann; A. Swiatnik; C. Burgess
- 15:00 – 15:20 Framework for Feasibility Assessment and Performance Analysis of Riverbank Filtration Systems for Water Treatment
Amy, Gary; Saroj Sharma; Daniel Chaweza; Nelson Bosuben; Ekkehard Holzbecher

BREAK

- 15:40 – 16:00 Significance of Vertical Leakage for an MAR Scheme in a Carbonaceous Aquifer: Geelong, Australia
Parsons, Stephen; Gwyn Hatton
- 16:00 – 16:20 Development of a Flow and Transport Model in a Highly Interactive Surface Water Groundwater System Near Everglades National Park in South Florida, USA
Guvanasen, Varut; Vivek Bedekar; Dilip Shinde; Rene Price
- 16:20 – 16:40 3-D Flow and Transport Modeling for an ASR Pilot Project of Sharjah Electricity & Water Authority
Labaky, Walid; Asam A. Almulla; Mayada Bardan; AlaEldin M.E.H
- 16:40 – 17:00 Recovery Efficiency Assessment of an ASR Well Using Groundwater Models
Guo, Weixing; R. Maliva; T. Missimer
- 17:00 – 17:20 Seawater Intrusion Barrier in the Deltaic Llobregat Aquifer (Barcelona, Spain)
Molinero, Jorge; F. Ortuño; E. Custodio; I. Juárez; T. Garrido; J. Fraile
- 17:20 – 17:40 Optimal Management of Groundwater Resources in Coastal Aquifers Subjected to Seawater Intrusion
Abd-Elhamid, Hany; A. A. Javadi
- 17:40 – 18:00 Transmissivity Sequential Use in Estimating the Efficiency Wells.
Pasarica, Ion

Al Fehaidi Hall

Enhancements in Aquifer Characterization

- 13:40 – 14:00 The Turku Region Artificial Infiltration Project, Finland – Tools for Enhanced Aquifer Characterization
Artimo, Aki; Sami Saraperä; Osmo Puurunen; Joni Mäkinen
- 14:00 – 14:20 Near Well Seismic Methods for Managed Aquifer Recharge: Perth Basin Western Australia
Harris, Brett; Christian Dupuis; Qin Li; Michael Martin; Henning Prommer
- 14:20 – 14:40 Hydrogeology of ASR - Lessons from over 60 Years of Global Practice
Maliva, Robert; Thomas M. Missimer
- 14:40 – 15:00 Determination of Infiltration Coefficient in Karstic Formations
Karimi Vardanjani, Hossein
- 15:00 – 15:20 Characterization of Weathered Basement Aquifers: Implication for Groundwater Recharge
Tijani, Moshood, N.; Alichu U. ALICHI; S. DIOP

BREAK

Geochemistry during Infiltration and Flow

- 15:40 – 16:00 Dynamics of Sulfate-reduction in the Floridan Aquifer System (Florida, USA) During ASR Cycle Testing, with Implications for Arsenic Sequestration at Reclaimed and Treated Surface Water ASR Systems
Mirecki, June
- 16:00 – 16:20 Identification of Geochemical Controls on Sediment Reactivity and Buffering Processes During Managed Aquifer Recharge in a Heterogeneous Aquifer: Laboratory Experiments and Inverse Kinetic Reaction Modelling
Descourvieres, Carlos; Henning Prommer; Niels Hartog; Carolyn Oldham; Janek Greskiowak; Bradley Patterson
- 16:20 – 16:40 Numerical Evaluation of Arsenic Behaviour During Deep Well Injection
Prommer, Henning; Ilka Wallis; Craig Simmons; Pieter Stuyfzand; Vincent Post; Thomas Pichler
- 16:40 – 17:00 Comparing Water Quality During Urban Stormwater MAR Via ASTR and ASR
Vanderzalm, Joanne; D. W. Page; K. E. Barry; P. J. Dillon
- 17:00 – 17:20 Physical, Geochemical and Microbial Processes Induced During the Aquifer Recharge Using Treated Wastewaters: Laboratory and Pilot Experiments and Numerical Simulations
Azaroual, Mohamed; Thiéry Dominique; Amraoui Nadia; Pettenati Marie; Croiset Croiset; Casanova Joel; Besnard Katia; Rampnoux Nicholas
- 17:20 – 17:40 Arsenic Behavior in SW Florida ASR Systems and Its Expert Modeling
Stuyfzand, Pieter J. ; R. David; G. Pyne
- 17:40 – 18:00 Multitracing of Artificially Recharged Rhine River Water in the Coastal Dune Aquifer System of the Western Netherlands
Kooiman, Jan Willem; Pieter J. Stuyfzand

Monday, October 11

Al Muraijib Hall

Alternative Recharge Systems

- 8:00 – 8:20 Three Dimensional Geodatabase Based Model for Groundwater Aquifer Storage and Recovery Pilot Experiment
Dawoud, Mohamed
- 8:20 – 8:40 Groundwater Recharge from Rainfall in Wadi Ham, United Arab Emirates
Sherif, Mohsen; Mohamed AlMulla; Abdel Azim Ebraheem
- 8:40 – 9:00 An Integrated Approach to Optimize Managed Aquifer Recharge as Long Term Measure for Controlling High Fluoride Concentration in Ground Water
Mahapatra, Lakshmi Datta; N K Shukla
- 9:00 – 9:20 The Orange County Water District Riverbed Filtration Pilot Project: Water Quality and Recharge Improvements Using Induced Riverbed Filtration
Milczarek, Michael; Greg Woodside; Adam Hutchinson; Jason Keller; Robert Rice; Adam MP Canfield
- 9:20 – 9:40 Prospects of Artificial Recharge for Augmentation of the Upper Dupi Tila Aquifer in Dhaka City, Bangladesh
Sultana, Sarmin; K. M. AHMED; M. B. MIA
- 9:40 – 10:00 Sustainable and Climate-Specific Rainwater Management by Water-Permeable Pavements in the Middle East region
Starke, Phillip

BREAK

- 10:20 – 10:40 Artificial Recharge to Manage Groundwater Quantity and Quality in Bangladesh: GIS Mapping and Other Investigations
Ahmed, Kazi Matin; S Sultana; K Hasan; K Groen; A Tuinhof; H Spruijt; L Patra; S K Ghosh; I Huq

10:40 – 11:00 Influence of Aquifer Properties on Water Quality Changes During Infiltration of Treated Effluent
Rahman, Mohammad Azizur; K. Nödler; T. Ptak; T. Licha; B. Rusteberg; K. Dimitriadis; Ath. Soupiras; M. Sauter

Risk Assessment and Uncertainty

11:00 – 11:20 Quantitative Microbial Risk Assessment to Determine Pathogen Risks for a Managed Aquifer Recharge Project
Page, Declan; Simon Tozeb; Elise Bekelec; Jatinder Sidhub

11:20 – 11:40 Hydrochemical Characterization of Groundwater and Surface Water in the Region of SIDI BEL ABBES (Western Algeria)
Benouis, Khadidja; Djamila Harrache; Khelloufi Benabdelli

LUNCH

The Role of MAR in Climate Change

13:00 – 13:20 Managing the Water Buffer for Development and Climate Change Adaptation
Tuinhof, Albert

13:20 – 13:40 Could climate change pose limits for the MAR? The case of the impact of climate change on the aquifer recharge of Geneva (Switzerland)
de Los Cobos, Gabriel

13:40 – 14:00 Planning Managed Aquifer Recharge in the Emilia-romagna Coastal Zone (Italy) to Contrast Salt-water Intrusion and Preserve Farmland, Forests, and Wetlands
Antonellini, Marco; Mollema Pauline; Zani Oscar

Al Fehaidi Hall

MAR in Arid Environments

8:00 – 8:20 Mapping of Sites for Underground Dams Using GIS in Golgir Plain, South West Iran
Mehrabinejad, Ali; Iman Mehrabinejad; Leila Mirzaei; Manoochehr Chitsazan; Farshad Alijani

8:20 – 8:40 ASR as a Strategic Resource - Challenges in the Arabian Gulf Region
Schott, Ulrich

8:40 – 9:00 Effects of Artificial Recharge Via Injection Wells on Groundwater Quality in a Shallow Alluvial Aquifer, Central Damascus Basin
Kattan, Zuhair ; N. Kadkoy; S. Nasser

9:00 – 9:20 Stormwater Artificial Recharge Method Through Vadose Injection into Volcanic Aquifer in Jeju, South Korea
Kim, Yongcheol ; Dukchul Moon; Kiwon Koh

9:20 – 9:40 Fresh Storage Salines Extraction (FSSE) wells, feasibility of freshwater storage in saline aquifer with a focus on the Red Sea coast, Egypt
Olsthoorn, Theo; M. van Ginkel; E. Smidt; R. Darwish; Salah Rashwan

9:40 – 10:00 Artificial Recharge with Urban Stormwater Runoff in Isa Town, Bahrain
Al-Noaimi, Mubarak

BREAK

Case Studies

10:20 – 10:40 Managed Aquifer Recharge for Drinking Water Supply in Water Scarce Areas Near the Aral Sea
Mavlonov, Aslon; I.Gracheva; A.Karimov; F.Miryusupov

10:40 – 11:00 The Role of MAR in Sustainable Water Supply - A Case Study-IGI Airport, Delhi
Chadha, Devinder Kumar

11:00 – 11:20 Optimisation of Water Release from a Dam to Recharge a Downstream Unconfined Alluvial Aquifer
Xu, Yongxin; Diganta Sarma; Greg Christelis; Jonathan Church

11:20 – 11:40 Storage of a New Water Resource for the Arizona Desert: The Development of Large Surface Water-spreading Facilities
Lluria, Mario R

11:40 – 12:00 Evaluation of Infiltration Rate Variation Effected by Suspended Solids in an Artificial Recharge Basin in Moosian Plain in Dehloran, West of Iran
Saeed Boroomand, Nasab; Ali Reza Rezania; Mohammad Albaji ; Ayoub Pirani

LUNCH

13:00 – 13:20 Combining the Improved Soil Moisture Balance and Water Level Fluctuation Methods to Estimate Recharge: A Case Study from Limestone Aquifer
Mikunthan, Thushyanthy

13:20 – 13:40 Development of Basins in a Hard-rock Terrain and Their Groundwater Recharge Potentialities: A Case Study
Das, Debasish

Fate of Pathogens/Organics

13:40 – 14:00 Modeling of the Water and Nitrogen Transfers in Unsaturated-saturated Porous Medium
Maslouhi, Abdellatif; O. Bamba Yacoub

Tuesday, October 12

Al Murajib Hall

Water Reuse and MAR

8:00 – 8:20 Reactions Between Chalk and Reclaimed Water and the Implications for Managed Aquifer Recharge in the Chalk Aquifer of London Basin
Russell, Gemma

8:20 – 8:40 Coudbreak: The Critical Role of MAR in Major Pilbara Mine Water Management Scheme
Youngs, Jed ; Jed Youngs; Bobak Willis-Jones; Damon Greenhalgh; Alifa Mcphee; Doug Brown

8:40 – 9:00 Mine Voids as Aquifer - Mine Water Reuse
Loredo, Jorge; Antonio Marqués; Efrén García Ordiales

9:00 – 9:20 Field and Laboratory Experiments to Investigate Infiltration Processes and Clogging Effects from a Ponding Recharge System at Ban Nong Na, Bangrakum District, Pitsanulok Province, Lower Yom River Basin, Thailand
Nadee , Suwanchai ; Kriengsak Srisuk; Phayom Sarapirom; Paul Pavelic; Sirirat Uppasit

9:20 – 9:40 Integrative Technologies for Safely Managed Groundwater Recharge Using Reclaimed Water in Zhengzhou, China
Jin, Menggui; Xing Liang; Zejiao Luo; Jianguo Bao

9:40 – 10:00 Reusing the Recycled Waste Water for Recharging the Aquifer Through Replenishment Technology
Perumalsamy, Navaraj

BREAK

10:20 – 10:40 Rainwater Harvesting from Rooftop and Yards in Gaza
Hamdan, Sami

10:40 – 11:00 Soil Aquifer Treatment Using Advanced Primary Effluent
Sharma, Saroj; Mustefa Hussen; Gary Amy

11:00 – 11:20 Urban Stormwater Recycled via Aquifer Storage Transfer and Recovery in Adelaide, South Australia
Hyde, Kylie; S. Rinck-Pfeiffer, R. Regel; K. Hyde; P. Dillon; M. C. Pitman

11:20 – 11:40 Reclaimed Water ASR in a Barrier Island Shallow Aquifer, Destin, Florida.
Missimer, Thomas; Robert G. Maliva; Richard F. Griswold; Monica M. Autrey

11:40 – 12:00 Managing the Thermal Aquifer System of Caldas Novas – Brazil
Tröger, Uwe

LUNCH

13:00 – 13:20 Effectiveness of Underground Dams in Shandong Peninsula, China
Weiping, Wang; Peter Dillon; Liu Pin; Men Fanhai; Vanderzalm Joanne; Liu Benhua; Qu Shisong

13:20 – 13:40 Reclaimed ASR - Assessment of Potential Storage Zones in the Middle East
Winslow, Frank; Robert G. Maliva

BREAK

Injection and Pond Infiltration Issues

14:20 – 14:40 Reinjection of Geothermal Water in Beijing Area
Han, Zaisheng

Operations and Management

15:00 – 15:20 DINA-MAR. Project for Management of Aquifer Recharge in the Context of Sustainable Development. Lines of Action and Results
Fernandez Escalante, Enrique; M^a Ángeles San Miguel; Carlos Copano; Jon San Sebastián; Ignacio Prieto

15:20 – 15:40 Managed Aquifer Recharge and Public Participation
Jokela, Petri; J. Valtonen

15:40 – 16:00 Expanding Experience at Intermediate and Deep Water Levels
Baski, Hank

16:00 – 16:20 A History of Success: Artificial Recharge in Las Vegas, Nevada
Goff, Michael

16:20 – 16:40 Application of the Drop Pipe Hydraulic and Aquifer Hydraulic Equations in Design and Operation of Artificial Recharge Wells
Gastelum, Jesus; R. Gastelum; Gary G. Small; Zhuping Sheng

Al Fehaidi Hall

Integrated Water Management

8:00 – 8:20 Interaction of Groundwater and Surface Water in Mahi Dasht Aquifer
Abdeh-Kolahchi, Abdolnabi; Karimi

8:20 – 8:40 Modeling the Managed Aquifer Recharge for Groundwater Salinity Management in Sokh River Basin
Karimov, Akmal; I. Gracheva; F. Miryusupov; M. Yakubov

8:40 – 9:00 Investigation of Pore Storage System to Minimize Water Losses from Water Harvesting Structures in Southern Jordan SMART Project Funded by BMBF Germany
Hamaideh, Arwa; J. Krümmelbein; W. Gerwin; R.F. Hüttl

9:00 – 9:20 Keep it Fresh! Field test results of the fresh keeper concept including disposal of the RO membrane concentrate by deep well injection
Oosterhof, Ate; Klaasjan J. Raat

9:20 – 9:40 Numerical Innovations for Improved Computational Efficiency in the Simulation of Basin-wide Integrated Surface-subsurface Flow: Testing of Sub-gridding and Sub-timing Methods
DeMarco, Don ; George Matanga; Dua Guvanassen; Mary Kang

9:40 – 10:00 Can Man-made Aquifers Provide a Solution for a Thirsty Mining Sector?
Botha, Fanie

BREAK

10:20 – 10:40 A European Initiative to Define Current Research Needs in Managed Aquifer Recharge
Grützmacher, Gesche; C. Kazner; A. Kneppers; H. Zojer

10:40 – 11:00 Managed Aquifer Recharge in Austria as Central Element of Integrated Water Resources Management
Kupfersberger, Hans

11:00 – 11:20 Contribution of Percolation Tanks to Total Aquifer Recharge: The Example of Gajwel Watershed, Southern India
Perrin, Jerome; Cédric Mascré; Sylvain Massuel; Shakeel Ahmed

11:20 – 11:40 Managed Aquifer Recharge Through a Penetrated River Bed in Shandong, China
Monnikhoff, Bertram; S. Kaden

11:40 – 12:00 Capturing the Lessons of ASR Failure from Trials in Unconsolidated Aquifers
Pavelic, Paul; Peter Dillon; Sumrit Chusanathas; Karen Barry

LUNCH

- 13:00 – 13:20 Aquifer Storage and Recovery Feasibility Study, Australian Capital Territory, Australia
Evans, William
- 13:20 – 13:40 Using COP Method to Assessment of Karst Vulnerability in Izeh, South West Iran
Alijani, Farshad; Ali Mehrabinejad; Leila Mirzaei; Kazem Rangzan
- 13:40 – 14:00 Selection of Suitable Sites for Artificial Recharge in Kuwait Using GIS Technology
Mukhopadhyay, Amitabha; Dr. Amr Fadlelmawla
- 14:00 – 14:20 Integrating Aquifer Storage and Recovery (ASR) into a Recycled Water Supply System for New Large Urban Residential Development in Geelong, Victoria, Australia.
Franklin, Justin; Mike Dudding; Seamus Butcher; Denis Musaeferdic
- 14:20 – 14:40 Artificial Recharge in Damascus Basin, Almazraa Drinking Water Field
Wannous, Manal; Qassem Natouf

BREAK

Regulations/Governance/Economics

- 15:00 – 15:20 Aquifer Storage Recovery: Economics and Recent Technical Advances
Pyne, David
- 15:20 – 15:40 Australian Guidelines for Managed Aquifer Recharge and Their International Relevance
Dillon, Peter; J. Vanderzalm; D. Page; S. Toze; P. Pavelic; D. Cunliffe
- 15:40 – 16:00 MAR Technical, Regulatory and Policy Challenges, Barriers and Evolving Solutions in the United States
Parker, Tim

BREAK

Data Management/Monitoring/Automation

- 16:20 – 16:40 Modeling of Wellbore Effects in Managed Aquifer Recharge Monitoring
Levannier, Arnaud