Joint Geological Society, Hydrogeology Group and British Hydrological Society Meeting





British Hydrological Society

Instrumenting groundwater - Novel technologies for groundwater research

21st April 2015

Priory Rooms, Birmingham, B4 6AF

Monitoring, quantification, prediction and management of groundwater are facing substantial challenges with increasing demands on water resources coinciding with the legacy and new pollution risks. Exciting technological developments in groundwater monitoring, from distributed sensor networks to novel tracer approaches, geophysical and remote sensing approaches offer great potential to change paradigms in understanding groundwater systems and their interactions with surface water.

This meeting offers an opportunity to learn about new technologies in groundwater instrumentation and to exchange experiences with experts from different fields of the hydrogeological research community in academia, industries and government agencies.

Who should attend? The meeting will bring together scientists, engineers, water managers, regulators, consultants and policy-makers from universities, research institutes, the water industry, the Environment Agency and DEFRA. The meeting will also contribute towards Continuing Professional Development (CPD) requirements.

Conveners:

Stefan Krause School of Geography, Earth and Environmental Sciences, University of Birmingham <u>s.krause@bham.ac.uk</u>

Corinna Abesser British Geological Survey, Wallingford cabe@bgs.ac.uk

Paul Howlett Royal HaskoningDHV paul.howlett@rhdhv.com

Programme

0930	Registration and coffee
0950	Welcome and Introduction
1000	Keynote: Victor Bense (University of East Anglia)
	Distributed Temperature Sensing technology to quantify groundwater flow in aquifers
1030-1045	David Banks (University of Glasgow)
	Temperature as a low cost tracer to evaluate residence times in an anthropogenic
	aquifer
	Marcus Adams (South West Water)
	A Methodology for the discrete depth sampling of public supply boreholes at
	operational pumping rates
1100-1110	Questions
1110-1140	Coffee break
1140-1210	Keynote: Theresa Blume (GFZ-GeoResearch Centre Potsdam)
	Radon and fibre optic temperature sensing: Detecting and quantifying groundwater
	inflows in streams and lakes
1210-1225	Donald MacAllister (Imperial College)
	Self-potential monitoring of seawater intrusion
1225-1240	Patrick Byrne (Liverpool John Moores University)
	Quantifying transient storage in a metal contaminated stream using OTIS
1240-1250	Questions
1250-1350	Buffett lunch
1320-1350	GeolSoc members only: Hydrogeology Group AGM
1350-1420	Keynote: Jonathan Evans (Centre of Ecology and Hydrology)
	Soil moisture sensing with COSMOS (title tbc)
1420-1435	Shane Regan (Trinity College)
	A method to investigate groundwater mixing in soft soils in wetland environments
1435-1450	Geraint Burrows (Hydrogeologists Without Borders)
	Title tbc
1450-1500	Questions
1500-1530	Coffee break

1530-1630 Poster session, exhibitions and demonstrations

- Gary Clarke (University of Birmingham / Sellafield): The development of a novel electrical conductivity array to assess salinity distribution in 2D sand tank experiments
- Ed Henderson (National Nuclear Laboratory): *Hydrological Monitoring Prior to the Construction of a Repository for Low and Short Lived Intermediate Level Radioactive Waste*
- Tajudeen M. Iwalewa (University of Cambridge): A shallow water table rise analysis using a coupled numerical modelling approach
- Ilias Karapanos (Affinity Water): Potential risk of de-icing salt runoff to chalk groundwater quality A Case study in Hertfordshire
- Kieran Khamis (University of Birmingham): *Monitoring water quality using a through- flow fluorescence sensor*
- Angelo Papaioannou (Schlumberger): Innovative groundwater monitoring technologies from SWS
- Floris Verhagan (Royal HaskoningDHV): Detection of groundwater inflow using temperature sensing techniques

Registration deadline: 27th March 2015

Please register online for this meeting via http://www.ice.org.uk/Event?ID=3360

Conference fees are £65 for BHS or Geol Soc members, £85 for non-members & £35 for retired/students.

Delegates are invited to contact the meeting organisers to advise of any special needs prior to attending the meeting. However, there is a question on the online registration process for this.

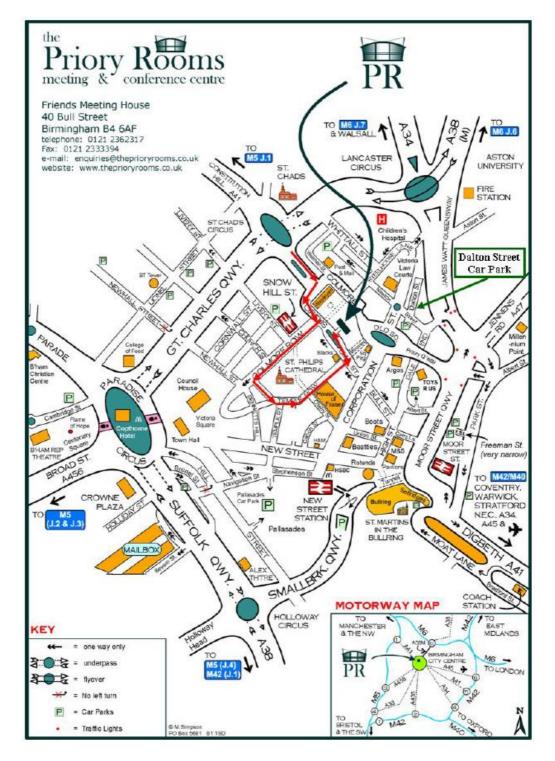
Further details will appear shortly on the web pages of the BHS (<u>www.hydrology.org.uk</u>) and the Hydrogeological Group of the Geological Society (<u>www.geolsoc.org.uk/hydro</u>).

Note to members of the Geological Society: The Annual General Meeting of the Geological Society of London Hydrogeology Group will be held at this meeting (see programme for details).

Venue

The meeting will be held at:

The Priory Rooms Quaker Meeting House 40 Bull Street Birmingham, B4 6AF



For information on how to get there see:

http://www.theprioryrooms.co.uk/page/location