

# IAH 2026 - Preliminary Oral Programme

53rd IAH World Groundwater Congress · Budapest · 14–18 September 2026

|                  |                  |                  |                  |
|------------------|------------------|------------------|------------------|
| Session 1.1 (12) | Session 1.2 (28) | Session 1.3 (16) | Session 1.4 (11) |
| Session 1.6 (8)  | Session 1.7 (35) | Session 1.8 (20) | Session 2.1 (15) |
| Session 2.2 (8)  | Session 3.3 (14) | Session 3.5 (8)  | Session 3.6 (12) |
| Session 3.8 (8)  | Session 4.1 (20) | Session 4.2 (24) | Session 4.3 (28) |
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| Session 5.1 (17) | Session 5.2 (7)  | Session 5.3 (18) | Session 5.4 (28) |
| Session 6.1 (12) | Session 6.2 (12) | Session 6.4 (8)  | Session 6.5 (8)  |

# Session 1.1

Thursday, 17-09-2026 · 12 oral presentations

## Part I · Thursday, 17-09-2026 · 10:00-12:00

| Time        | ID  | Presenting author            | Presentation title                                                                                                                                                                                                                               |
|-------------|-----|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10:00-10:15 | 256 | <b>Bogdevici, Oleg</b>       | Evaluation of surface-groundwater interaction using stable isotopes and geochemical composition for water management purposes in arid zone                                                                                                       |
| 10:15-10:30 | 285 | <b>Koeniger, Paul</b>        | A new database for stable isotopes and tritium in precipitation, surface water and groundwater – German isotope network                                                                                                                          |
| 10:30-10:45 | 94  | <b>Xie, Yueqing</b>          | Paleoclimate reconstruction in a large delta with groundwater isotopes                                                                                                                                                                           |
| 10:45-11:00 | 806 | <b>Czuppon, György</b>       | Cave drip water reflects karst hydrology and precipitation dynamics                                                                                                                                                                              |
| 11:00-11:15 | 803 | <b>Dragusin, Virgil</b>      | Groundwater-precipitation isotopic relationship at several sites in Romania                                                                                                                                                                      |
| 11:15-11:30 | 444 | <b>Gui, Jianye</b>           | Development of a new pretreatment device and method for hydrogen and oxygen isotope analysis of complex matrix environmental samples                                                                                                             |
| 11:30-11:45 | 616 | <b>Vreča, Polona</b>         | Long-term water isotope datasets from Slovenia supporting isotope hydrogeological research                                                                                                                                                       |
| 11:45-12:00 | 680 | <b>Hatvani, István Gábor</b> | Spatial distribution of the isotope hydrological characteristics ( $\delta^2\text{H}$ , $\delta^{18}\text{O}$ , $\delta^{34}\text{S}$ ) of groundwater in Hungary in the 2020s – contribution to the National Atlas of Isotope Hydrology project |

## Part II · Thursday, 17-09-2026 · 13:00-14:00

| Time        | ID  | Presenting author                   | Presentation title                                                                                                                                                           |
|-------------|-----|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 13:00-13:15 | 706 | <b>Gcakasi, Monis Nolitha</b>       | Application of nitrate and water stable isotopes to evaluate nitrate dynamics and surface-groundwater interaction in the Lower Lobau floodplain aquifer (Danube River Basin) |
| 13:15-13:30 | 363 | <b>Yoxas, Gerasimos</b>             | Assessment of groundwater potential and productivity variability through exploratory boreholes in Tseri, Cyprus                                                              |
| 13:30-13:45 | 780 | <b>Ferreira, Ana Clara Mariante</b> | Groundwater-glacier connectivity and meltwater recharge in an Antarctic periglacial system revealed by radon and isotopes                                                    |
| 13:45-14:00 | 923 | <b>Ortega, Lucia</b>                | Localized urban recharge and return flows shape groundwater dynamics in the Patiño Aquifer, Asunción, Paraguay                                                               |

# Session 1.2

Wednesday, 16-09-2026 · Thursday, 17-09-2026 · 28 oral presentations

## Part I · Wednesday, 16-09-2026 · 10:00-12:30

| Time        | ID  | Presenting author | Presentation title                                                                                                       |
|-------------|-----|-------------------|--------------------------------------------------------------------------------------------------------------------------|
| 10:00-10:15 | 124 | Baalousha, Husam  | From CT scans to flow models: enhancing aquifer characterization in complex bioturbated carbonates                       |
| 10:15-10:30 | 103 | Malard, Arnaud    | New tools for flow animation and conduit generation in karst aquifers using Visual KARSYS                                |
| 10:30-10:45 | 33  | Kordilla, Jannes  | openKARST: from detailed karst conduit dynamics to simplified hydraulic flow descriptions                                |
| 10:45-11:00 | 938 | Kovács, Attila    | Stochastic modelling of karst conduit networks informed by geological and hydrodynamic constraints                       |
| 11:00-11:15 | 106 | Mayaud, Cyril     | FloodWatch: a mobile application to monitor floods in karst areas                                                        |
| 11:15-11:30 | 559 | Achour, Farid     | Significance and origin of the very large regulating power of the Big Spring karst aquifer in Missouri (USA)             |
| 11:30-11:45 | 708 | Ravbar, Nataša    | Assessing climate change impacts on mountain karst spring discharge using hydrological modelling and climate projections |
| 11:45-12:00 | 694 | Kogovšek, Blaž    | Concentration-discharge hysteresis to characterise recharge at karst springs: the Unica springs case study               |
| 12:00-12:15 | 590 | Stevanović, Zoran | Criteria for selecting the most important karst springs – output of the MIKAS Project                                    |
| 12:15-12:30 | 913 | Nicholson, Riley  | Analysis of streamflow data in a groundwater-dominated karst catchment demonstrates early signals of streamflow capture  |

## Part II · Wednesday, 16-09-2026 · 14:45-17:15

| Time        | ID  | Presenting author            | Presentation title                                                                                                                                                                                    |
|-------------|-----|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 14:45-15:00 | 572 | Mok, Chin Man                | Not forgotten in the back of the drawer – breathing new life into geophysical data for groundwater modeling                                                                                           |
| 15:00-15:15 | 750 | Balázs, László               | Muography: an effective geophysical tool for detecting fracture systems and cavities                                                                                                                  |
| 15:15-15:30 | 738 | De Luise, Serena             | Hydrogeological site characterization of pyroclastic soils: case studies from Campania (South Italy)                                                                                                  |
| 15:30-15:45 | 29  | Zhou, Changsong              | Strontium enrichment patterns and source dynamics in karst underground river sediments: comparative case studies from Guizhou, China                                                                  |
| 15:45-16:00 | 792 | Cunha de Paula, Lucas Daniel | Karst aquifer dynamics: a multi-tracer approach combining <sup>3</sup> H, <sup>222</sup> Rn, <sup>18</sup> O, and <sup>2</sup> H with lumped-parameter modelling in Sete Lagoas, Minas Gerais, Brazil |
| 16:00-16:15 | 115 | Guo, Fang                    | Ecological and hydrological effects of vegetation restoration in karst peak-cluster depression system                                                                                                 |
| 16:15-16:30 | 141 | Villafane Pagan, Jobel       | Puerto Rico's submarine groundwater discharge characterization: North Coast Limestone aquifer system                                                                                                  |
| 16:30-16:45 | 715 | Fujieda, Kanako              | Influence of hydraulic conductivity distributions on solute transport in a karstic limestone aquifer                                                                                                  |
| 16:45-17:00 | 615 | Malík, Peter                 | Karstic spring Morské oko in Tornaľa, southern Slovakia: recharge area problem                                                                                                                        |
| 17:00-17:15 | 420 | Höpker, Sebastian            | New perspectives on recharge and water quality from integrated groundwater and cave monitoring on the raised coral atoll Niue                                                                         |

## Part III · Thursday, 17-09-2026 · 10:00-12:00

| Time        | ID  | Presenting author | Presentation title                                                                                                                                     |
|-------------|-----|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10:00-10:15 | 233 | Dong, Muqing      | Characterising spatial groundwater recharge heterogeneity using transfer-function modelling in a fractured rock aquifer in Wellington (NSW, Australia) |

| Time               | ID  | Presenting author       | Presentation title                                                                                                                                                  |
|--------------------|-----|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>10:15-10:30</b> | 710 | <b>Orticoni, Davia</b>  | Coupling pumping-test interpretation and natural tracers to characterize compartmentalization in a mineral water fractured aquifer                                  |
| <b>10:30-10:45</b> | 430 | <b>Meus, Philippe</b>   | Retrospective and prospective on the use of fluorescent tracers in hydrogeology                                                                                     |
| <b>10:45-11:00</b> | 324 | <b>Baldwin, Dwight</b>  | Refined geological and hydrogeological models to resolve surface and underground impacts of the Einstein Telescope facility in the Euregio-Meuse Rhine (EMR) region |
| <b>11:00-11:15</b> | 271 | <b>Ivanova, Arina</b>   | Hydrogeologically diverse aquifers converge surface-derived DOM into a persistent molecular core                                                                    |
| <b>11:15-11:30</b> | 361 | <b>Tamagnini, Erica</b> | Deep-seated gravitational slope deformations control on groundwater flow and spring dynamics in the Northern Apennines (Italy)                                      |
| <b>11:30-11:45</b> | 401 | <b>Sauter, Martin</b>   | The role of carbonate aquifers in the circum-Mediterranean region as a storage reservoir in the context of water resources management strategies                    |
| <b>11:45-12:00</b> | 56  | <b>Zou, Shengzhang</b>  | Groundwater hydrochemical characteristics and human health risk assessment of dispersed karst water sources in southeast of Chongqing                               |

# Session 1.3

Tuesday, 15-09-2026 · 16 oral presentations

## Part I · Tuesday, 15-09-2026 · 10:30-12:30

| Time        | ID  | Presenting author     | Presentation title                                                                                                                                                   |
|-------------|-----|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10:30-10:45 | 284 | Breukelen, Boris van  | Chemical hydrogeology of freshened groundwater offshore New England                                                                                                  |
| 10:45-11:00 | 538 | Parker, Aqeela        | From data to decision: conceptualising coastal alluvial aquifers for sustainable groundwater abstraction in Namibia                                                  |
| 11:00-11:15 | 560 | Oude Essink, Gualbert | Effects of sea-level rise on fresh groundwater resources in coastal dune areas – case study in the Netherlands                                                       |
| 11:15-11:30 | 796 | Mohamed, Ali          | Geoelectrical and isotopic constraints on seawater intrusion: a case study from Ras Sudr, western-central Sinai                                                      |
| 11:30-11:45 | 45  | Mostafa, Mostafa F.   | Machine learning-assisted hydrochemical analysis of seawater intrusion in karst aquifers: insights from Apulia, SE Italy                                             |
| 11:45-12:00 | 376 | Kurylyk, Barret       | Linking analytical solutions and geospatial modeling to map patterns of aquifer vulnerability to saltwater intrusion and coastal groundwater flooding                |
| 12:00-12:15 | 87  | Lin, Yuhang           | Nonlinear response of coastal unconfined aquifers to irregular semidiurnal tides: field experiments and numerical modeling                                           |
| 12:15-12:30 | 924 | Cianflone, Giuseppe   | Hydrogeology of the Gioia Tauro Coastal Plain (southern Italy): integrating baseline knowledge and numerical modeling for groundwater management under global change |

## Part II · Tuesday, 15-09-2026 · 16:45-18:45

| Time        | ID  | Presenting author          | Presentation title                                                                                                                  |
|-------------|-----|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| 16:45-17:00 | 164 | Jaramillo, Valentina Uribe | Coastal processes and groundwater response: long-term climate change impacts on a sandy barrier island                              |
| 17:00-17:15 | 15  | Tobon, Nidia               | Assessing shallow aquifer heterogeneity with geophysical and numerical modelling in an atoll island setting                         |
| 17:15-17:30 | 868 | Van Hanja, Jonathan        | Variability in submarine groundwater discharge estimates: a comparative review from the Campo de Cartagena-Mar Menor system (Spain) |
| 17:30-17:45 | 574 | Guo, Liming                | A probabilistic framework for joint saline and geological model generation with geophysical and petrophysical constraints           |
| 17:45-18:00 | 318 | Volpe, Angela              | Assessment of sea impact on a Mediterranean coastal water system and its evolution over time                                        |
| 18:00-18:15 | 84  | Wu, Rui                    | Boundary condition improvements for tidally forced coastal unconfined aquifer models and analysis for solute transport mechanisms   |
| 18:15-18:30 | 89  | Lipparini, Lorenzo         | Unconventional groundwater exploration in Sicily (Italy)                                                                            |
| 18:30-18:45 | 461 | Tijani, Moshood            | Integrated electrical resistivity and hydrochemical assessments of saltwater intrusion in coastal aquifers of southwestern Nigeria  |

# Session 1.4

Tuesday, 15-09-2026 · 11 oral presentations

## Part I · Tuesday, 15-09-2026 · 10:30-12:30

| Time        | ID  | Presenting author | Presentation title                                                                                                           |
|-------------|-----|-------------------|------------------------------------------------------------------------------------------------------------------------------|
| 10:30-10:45 | 465 | Post, Vincent     | Preservation of connate seawater in deep sedimentary aquifers: a case study from the Netherlands                             |
| 10:45-11:00 | 329 | Gutierrez, Alexis | Hydrogeological settings of the Yaque del Sur Basin - knowledge update                                                       |
| 11:00-11:15 | 151 | Han, Peng-Fei     | Three-dimensional interbasin groundwater flow toward a groundwater-fed stream: identification, partition, and quantification |
| 11:15-11:30 | 707 | Zhang, Zhi-Yuan   | Comparative analysis of different methods for delineating three-dimensional groundwater flow systems                         |
| 11:30-11:45 | 872 | Parker, Beth      | Informing groundwater flow systems from an aquitard perspective                                                              |
| 11:45-12:00 | 788 | Xiao, Yong        | Hierarchical groundwater flow systems and their interactions with the river-lake system in dry closed basins                 |
| 12:00-12:15 | 313 | Frem, Michel      | Data-driven conceptual modelling of complex highland-lowland hydrological interactions in the Ethiopian Rift Valley          |
| 12:15-12:30 | 167 | Czauner, Brigitta | Tracking regional-scale aquitard permeability using fully coupled groundwater flow models in the Central Pannonian Basin     |

## Part II · Tuesday, 15-09-2026 · 14:45-15:30

| Time        | ID  | Presenting author | Presentation title                                                                           |
|-------------|-----|-------------------|----------------------------------------------------------------------------------------------|
| 14:45-15:00 | 857 | Ferguson, Grant   | Landscape evolution and hydrogeologic change                                                 |
| 15:00-15:15 | 826 | Hirata, Ricardo   | Where rivers depend on groundwater: mapping baseflow dynamics across São Paulo State, Brazil |
| 15:15-15:30 | 518 | Szymkiewicz, Adam | A framework for integrating models of contaminant transport in vadose zone and groundwater   |

## Session 1.6

Friday, 18-09-2026 · 8 oral presentations

### Complete session · Friday, 18-09-2026 · 10:30-12:30

| Time        | ID                   | Presenting author    | Presentation title                                                                                                                                         |
|-------------|----------------------|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10:30-10:45 | 105                  | Kłonowski, Maciej R. | Hydrogeology and hydrogeochemistry of selected potentially medicinal waters of the Sudetes (SW Poland, NE Bohemian Massif)                                 |
| 10:45-11:00 | 181                  | Marques, José        | Comparative conceptual modelling of hyposaline natural mineral waters systems in quartzitic settings (Central Portugal)                                    |
| 11:00-11:15 | 262                  | Szabó, Zsóka         | Integrated hydrogeochemical and isotopic investigation of the thermal karst system of Budapest, Hungary: implications for groundwater system understanding |
| 11:15-11:30 | 1030                 | Deák, József         | Use of isotope tools to prove the Ice Age origin and pristineness of the Minera mineral water in Albertirsa (Hungary)                                      |
| 11:30-11:45 | 713                  | Orticoni, Davia      | Multi-tracer isotope approach for groundwater-surface water interactions in a Mediterranean complex aquifer exploited for natural mineral water            |
| 11:45-12:00 | 920                  | Fórizs, István       | Isotope hydrological proof of the special properties of the Hungarian mineral waters                                                                       |
| 12:00-12:15 | Sponsor presentation |                      | Sponsor presentation                                                                                                                                       |
| 12:15-12:30 | Sponsor presentation |                      | Sponsor presentation                                                                                                                                       |

# Session 1.7

Wednesday, 16-09-2026 · Thursday, 17-09-2026 · 35 oral presentations

## Part I · Wednesday, 16-09-2026 · 10:00-12:30

| Time        | ID  | Presenting author          | Presentation title                                                                                                                                                               |
|-------------|-----|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10:00-10:15 | 439 | <b>Gui, Jianye</b>         | Newly developed isotopic preparative chromatograph for separation and purification enabling precise analysis of various non-traditional isotopes in geological samples           |
| 10:15-10:30 | 718 | <b>Abadie, Benoit</b>      | Understanding the role of compartmentalization in stream response to major precipitation events in Central European upland catchments: the Ahr Valley, Germany                   |
| 10:30-10:45 | 95  | <b>Yongli, Guo</b>         | Hydrogeological characteristics and hydrochemical environment of a karst aquifer system are determined by the presence of major ions, trace elements, and environmental isotopes |
| 10:45-11:00 | 307 | <b>Carreira, Paula</b>     | Discriminating seawater intrusion from other salinization sources in the Algarve Sedimentary Basin: insights from environmental isotopes                                         |
| 11:00-11:15 | 325 | <b>Vasileiou, Eleni</b>    | Tracing anthropogenic versus geogenic sources of groundwater pollution using multi-isotope fingerprints: the case study of the Sarigiol Basin, Western Macedonia                 |
| 11:15-11:30 | 892 | <b>Huang, Tianming</b>     | Calcium and multi-isotope constraints on cation exchange in groundwater                                                                                                          |
| 11:30-11:45 | 842 | <b>Walter, Julien</b>      | Hydrogeochemical mixing and deep fluid contributions in a Precambrian shield graben: a multi-isotope and noble gas approach                                                      |
| 11:45-12:00 | 471 | <b>Porru, Maria Chiara</b> | Advancing knowledge for sustainable groundwater management in Sardinia: an integrated multi-isotopic approach                                                                    |
| 12:00-12:15 | 20  | <b>Eid, Mohamed Hamdy</b>  | Integrated hydrogeological assessment for sustainable groundwater management in the Siwa Oasis, Egypt                                                                            |
| 12:15-12:30 | 166 | <b>Filippini, Maria</b>    | Tracing recharge and flow redistribution in alluvial fans of the Northern Apennines (Italy): implications for sustainable groundwater abstraction                                |

## Part II · Wednesday, 16-09-2026 · 14:45-17:15

| Time        | ID  | Presenting author             | Presentation title                                                                                                                                                |
|-------------|-----|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 14:45-15:00 | 875 | <b>Martinez, Virgilio</b>     | Altitude-controlled recharge and groundwater flow patterns in a semi-arid Andean alluvial aquifer                                                                 |
| 15:00-15:15 | 482 | <b>Jarraya, Asala</b>         | Natural and anthropogenic factors controlling groundwater mineralisation in semi-arid climates: the Zaghouan aquifer system (Tunisia)                             |
| 15:15-15:30 | 699 | <b>Kahnamuei, Saeed Bidar</b> | Hydrogeological characterization of flow system feeding the Lake Hévíz by the application of natural tracers                                                      |
| 15:30-15:45 | 186 | <b>Davies, Emma</b>           | Water age of rivers and groundwater in Nepal using 129I and other classical tracers                                                                               |
| 15:45-16:00 | 321 | <b>Zechner, Eric</b>          | Integrating hydrochemical, isotopic, gaseous, pharmaceutical, and eDNA tracers to detect active subsidence of intrastratal halite                                 |
| 16:00-16:15 | 654 | <b>Jiang, Xiaowei</b>         | New mechanisms of hydrochemical evolution from Ca-Mg-HCO <sub>3</sub> -dominated to Na-HCO <sub>3</sub> -dominated groundwater: evidences from Ca and Mg isotopes |
| 16:15-16:30 | 413 | <b>Cammaer, Chris</b>         | The use of long-term monitoring data to delineate natural background levels for the assessment of groundwater contamination                                       |
| 16:30-16:45 | 127 | <b>Gürsoy, Sibel Melisa</b>   | Assessment of salinity and geogenic fluoride and vanadium contamination of a deep aquifer system in northern Namibia                                              |
| 16:45-17:00 | 627 | <b>Richards, Joshua</b>       | Evidence for variable sources of Na-Cl in groundwaters of northern Switzerland                                                                                    |



| Time        | ID | Presenting author | Presentation title                                                                                                                      |
|-------------|----|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 17:00-17:15 | 30 | Houben, Georg J.  | Potential trace metal release during chemolithotrophic denitrification – a comprehensive study of pyrites from northern German aquifers |

### Part III · Thursday, 17-09-2026 · 10:00-12:00

| Time        | ID  | Presenting author         | Presentation title                                                                                                                                         |
|-------------|-----|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10:00-10:15 | 904 | Wang, Qiang               | Cele River-Keriya River Basin alluvial-proluvial fan depression zone groundwater reservoir formation conditions and regulation and storage potential study |
| 10:15-10:30 | 586 | Marcin, Daniel            | Conditions of mineral waters formation in Herľany                                                                                                          |
| 10:30-10:45 | 221 | Esmond, Monica            | Springs are crucibles of biodiversity connecting groundwater and surface water ecohydrology                                                                |
| 10:45-11:00 | 248 | Gori, Francesca           | Combined impact of climate and seismic activity on shallow-to-deep groundwater systems by monitoring hydrogeochemistry in the Eastern Southern Alps, Italy |
| 11:00-11:15 | 466 | Jimenez-Martinez, Joaquin | Reducing nitrate loads to a Mediterranean aquifer: effects of crop-rotation strategies and soil nitrogen gas fluxes                                        |
| 11:15-11:30 | 496 | Ram, Roi                  | Noble gases record Last Glacial-Holocene water-table decline in the arid southeastern Mediterranean                                                        |
| 11:30-11:45 | 282 | Ramos, Maria Luiza        | Hydrodynamics of Morro da Água Quente geothermal system and mining feasibility at Fazendão mine, Quadrilátero Ferrífero, southeastern Brazil               |
| 11:45-12:00 | 194 | Kivits, Tano              | Reconstructing groundwater age and vertical flow paths in a former coal mining area using multi-tracer analysis                                            |

### Part IV · Thursday, 17-09-2026 · 13:00-14:45

| Time        | ID  | Presenting author    | Presentation title                                                                                                                                                                  |
|-------------|-----|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 13:00-13:15 | 818 | Lu, Xinyan           | Permafrost-controlled submarine groundwater discharge and sea ice processes amplify radium signals in the Arctic Ocean                                                              |
| 13:15-13:30 | 288 | Musy, Stephanie L.   | Diffusion-controlled isotope transport and implications for dating fossil groundwater in the Milk River Aquifer (Canada-USA)                                                        |
| 13:30-13:45 | 495 | Yang, Guo-Min        | 81Kr dating of liter-sized groundwater samples enables simple bottle-based field collection                                                                                         |
| 13:45-14:00 | 478 | Mao, Deqiang         | Integrating spectral induced polarization with reactive transport modeling to quantify nitrate remediation capacity of permeable reactive barriers                                  |
| 14:00-14:15 | 605 | Jiang, Lei           | Interaction between surface water-groundwater and its ecological effects on the lower reaches of Tarim River Basin affected by ecological water conveyance                          |
| 14:15-14:30 | 133 | Voudouris, Stylianos | Multidisciplinary characterization of a Mediterranean island hydrogeosystem                                                                                                         |
| 14:30-14:45 | 601 | Lartsey, Priscilla   | Establishing the origin and mechanism of groundwater recharge in basement aquifers of the north-western Volta River Basin of Ghana, using environmental isotopes and hydrochemistry |

# Session 1.8

Wednesday, 16-09-2026 · 20 oral presentations

## Part I · Wednesday, 16-09-2026 · 10:00-12:30

| Time        | ID   | Presenting author  | Presentation title                                                                                                                                                                               |
|-------------|------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10:00-10:15 | 80   | Re, Viviana        | Multi-tracer assessment of nitrate contamination in urban aquifers: the case of Abuja FCT (Nigeria)                                                                                              |
| 10:15-10:30 | 603  | Cisternino, Andrea | Multi-isotope tracers for investigating groundwater quality and biogeochemical processes at a landfill site                                                                                      |
| 10:30-10:45 | 243  | Meiselbach, Kai    | Characterisation of spatially and temporally varying surface water and groundwater interaction processes at a MAR site using environmental tracers                                               |
| 10:45-11:00 | 123  | Van Limbergen, Bo  | Tackling high nitrate concentrations near a drinking water abstraction site through isotopic analysis and environmental stakeholder management                                                   |
| 11:00-11:15 | 1029 | Deák, József       | Tracking isotope and nitrate patterns of subsurface pathways in hilly catchments heavily affected by agriculture                                                                                 |
| 11:15-11:30 | 245  | Sangalli, Lorenzo  | Assessment of nitrogen-bearing compound sources in the Lomellina rice-paddy area through nitrogen and oxygen isotope analysis in the local phreatic aquifer                                      |
| 11:30-11:45 | 470  | Vadillo, Iñaki     | Temporal evolution of emerging contaminants in groundwater from an area irrigated with reclaimed wastewater                                                                                      |
| 11:45-12:00 | 499  | Tomei, Alessio     | Occurrence of contaminants of emerging concern and their metabolites in groundwater below a sewage treatment facility                                                                            |
| 12:00-12:15 | 739  | Turan, Hatice      | Integrating environmental isotopes and contaminants of emerging concern to unravel hydrogeological processes in Mediterranean coastal lagoons: a case study of Étang de l'Or (Occitanie, France) |
| 12:15-12:30 | 203  | Currell, Matthew   | Contaminants in unexpected places: explaining the occurrence of synthetic chemicals in deep groundwater                                                                                          |

## Part II · Wednesday, 16-09-2026 · 14:45-17:15

| Time        | ID  | Presenting author    | Presentation title                                                                                                                                                                          |
|-------------|-----|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 14:45-15:00 | 121 | Cocca, Daniele       | Unraveling the interactions between shallow and deep aquifers analysing groundwater chemical trends: insights from a case study in the Piedmont Po Plain (NW Italy)                         |
| 15:00-15:15 | 459 | Lobina, Francesca    | Nitrogen dynamics and natural attenuation in the unsaturated zone: insights from a high-resolution study in the Arborea NVZ (Italy)                                                         |
| 15:15-15:30 | 784 | Gastmans, Didier     | Urbanization and overexploitation impacts in a complex aquifer in semiarid region in northeastern Brazil                                                                                    |
| 15:30-15:45 | 451 | Pearce, Julie        | Tracers for potential gas reservoir-aquifer leakage, a focus on $^{87}\text{Sr}/^{86}\text{Sr}$                                                                                             |
| 15:45-16:00 | 79  | Ślósarczyk, Kinga    | Occurrence of pharmaceuticals and personal care products in groundwater replenished by managed aquifer recharge at the Świerczków well field site (southern Poland)                         |
| 16:00-16:15 | 757 | Oldani, Erica        | CSIA for assessing chlorinated solvents bioremediation: a user's perspective on the state of practice                                                                                       |
| 16:15-16:30 | 918 | Yu, Lily             | Modeling a moving target: a chemical conceptual model for groundwater plumes under changing pumping conditions                                                                              |
| 16:30-16:45 | 263 | Zainab, Syeda Maria  | From sink to spring: how do microplastics behave in a show-cave karst aquifer?                                                                                                              |
| 16:45-17:00 | 822 | Farlin, Julien       | Using nitrate isotopes and ancillary catchment information on nitrate sources to perform a coupled estimation of source apportionment and denitrification losses in drinking water aquifers |
| 17:00-17:15 | 365 | Árcega Cabrera, Flor | Emerging organic contaminants in the karst aquifer of Yucatán, Mexico: assessing the urban impact of Mérida                                                                                 |

# Session 2.1

Tuesday, 15-09-2026 · 15 oral presentations

## Part I · Tuesday, 15-09-2026 · 10:30-12:30

| Time        | ID  | Presenting author              | Presentation title                                                                                                                                                   |
|-------------|-----|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10:30-10:45 | 617 | <b>Rybach, Ladislaus</b>       | How to generate power from deep geothermal resources for the growing electricity demand in the future?                                                               |
| 10:45-11:00 | 119 | <b>Bofill, Lucas</b>           | Overlooked sedimentary heterogeneity as a control on advective groundwater transport: insights from Triassic sandstones, eastern France                              |
| 11:00-11:15 | 176 | <b>Budai, Soma</b>             | Sedimentary architecture of the Mezőberény geothermal aquifer and its control on doublet performance (SE Hungary)                                                    |
| 11:15-11:30 | 153 | <b>Pantopoulos, Georgios</b>   | Quantifying the geothermal impact of sedimentary heterogeneity through stochastic reservoir modeling: Sergnano Gravel Formation (late Messinian), Po Basin, NW Italy |
| 11:30-11:45 | 939 | <b>Madarász, Tamás</b>         | Co-production of geothermal energy and Critical Raw Materials (CRM)                                                                                                  |
| 11:45-12:00 | 473 | <b>Velásquez-Parra, Andrés</b> | Aquifer reaction to high-temperature energy storage as a key for a sustainable energy transition                                                                     |
| 12:00-12:15 | 244 | <b>Vandelois, Guillaume</b>    | Assessing the energy storage potential of abandoned longwall coal mines: a coupled hydro-thermo-geomechanical approach in Wallonia (Belgium)                         |
| 12:15-12:30 | 565 | <b>Markó, Ábel</b>             | Geothermal reinjection potential – a parameter to evaluate injection possibilities in siliciclastic aquifers                                                         |

## Part II · Tuesday, 15-09-2026 · 16:45-18:30

| Time        | ID                   | Presenting author          | Presentation title                                                                                                  |
|-------------|----------------------|----------------------------|---------------------------------------------------------------------------------------------------------------------|
| 16:45-17:00 | 846                  | <b>Manna, Ferdinando</b>   | Modern characterization of fractured dolostone aquifers for safe low-temperature geothermal deployment              |
| 17:00-17:15 | 463                  | <b>Njeru, Rita Mwendia</b> | Hydro-mechanical coupling and pore-scale clogging controls on injectivity decline in a geothermal sandstone aquifer |
| 17:15-17:30 | 986                  | <b>Pál, Lénárd</b>         | Geo-Log Ltd.: 35 years of borehole geophysics, well logging, and geological exploration                             |
| 17:30-17:45 | Sponsor presentation | <b>Tiszavári, Sándor</b>   | Advanced drilling technologies and Hungary's first hybrid geothermal project                                        |
| 17:45-18:00 | 129                  | <b>Rman, Nina</b>          | Towards a plan for managing abandoned wells in Slovenia – experiences and surprises                                 |
| 18:00-18:15 | 985                  | <b>Szlukovinyi, Áron</b>   | Geo-Log's activities in thermal water wells in Hungary and the Carpathian Basin                                     |
| 18:15-18:30 | 581                  | <b>Glavanov, Gergő</b>     | Shallow geothermal energy utilization for more sustainable university campus: a case study from ELTE, Budapest      |

## Session 2.2

Tuesday, 15-09-2026 · 8 oral presentations

### Complete session · Tuesday, 15-09-2026 · 16:45-18:45

| Time               | ID  | Presenting author                | Presentation title                                                                                                                     |
|--------------------|-----|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| <b>16:45-17:00</b> | 691 | <b>Kaczynski, Bartosz</b>        | Evolution of hydrogeological conceptual models through feasibility stages and their influence on mining project outcomes               |
| <b>17:00-17:15</b> | 306 | <b>van der Keur, Peter</b>       | Addressing the groundwater gap: harmonizing UNFC E-axis evaluations for mining projects                                                |
| <b>17:15-17:30</b> | 877 | <b>Suescun, Luis</b>             | How management options change data worth: monitoring design for adaptive post-mining strategies                                        |
| <b>17:30-17:45</b> | 799 | <b>Gonzales, Edgard</b>          | Integrated geophysical characterization of aquifer depressurization and karstic subsidence induced by open-pit mining in southern Peru |
| <b>17:45-18:00</b> | 191 | <b>Puelles-Ramirez, Wilfredo</b> | Bridging numerical modeling and field tracer testing in the unsaturated zone of decommissioned mining sites                            |
| <b>18:00-18:15</b> | 884 | <b>Conrad, Julian</b>            | Steenkampskraal Rare Earths Mine: Baseline hydrogeological monitoring and stakeholder engagement                                       |
| <b>18:15-18:30</b> | 373 | <b>Zaniboni, Linda</b>           | Long-term environmental impacts of historical gold mining on soil and water: a comparison between Italian and Portuguese case studies  |
| <b>18:30-18:45</b> | 107 | <b>Tiwari, Ashwani Kumar</b>     | Metal contamination in groundwater in Umaria Coalfield of Madhya Pradesh, India                                                        |

## Session 3.3

Thursday, 17-09-2026 · 14 oral presentations

### Part I · Thursday, 17-09-2026 · 10:00-12:00

| Time        | ID  | Presenting author   | Presentation title                                                                                                                                                                |
|-------------|-----|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10:00-10:15 | 449 | Hinsby, Klaus       | From local springs to global signals: why mandatory national spring monitoring is essential for groundwater status assessments                                                    |
| 10:15-10:30 | 349 | Gibson, Anne        | Using a novel chain of models to mimic source aquifer depressurisation impacts across the Doongmabulla Springs Complex, Queensland, Australia                                     |
| 10:30-10:45 | 460 | Cresswell, Richard  | Multiple lines of evidence provide a holistic and testable conceptualisation of complex ecosystem-groundwater dynamics at the Doongmabulla Springs Complex, Queensland, Australia |
| 10:45-11:00 | 456 | Korbel, Kathryn     | Monitoring groundwater ecosystems: lessons from 20 years of sampling in the Murray-Darling Basin, Australia                                                                       |
| 11:00-11:15 | 678 | Garel, Emilie       | Tritium as an indicator of legacy groundwater pollution to Mediterranean ecosystems                                                                                               |
| 11:15-11:30 | 468 | Gargini, Alessandro | Mapping groundwater-dependent ecosystems in a mountain setting: an integrated approach                                                                                            |
| 11:30-11:45 | 299 | Egidio, Elena       | Assessing the sensitivity of lowland springs to climate variability and anthropogenic pressures through integrated monitoring                                                     |
| 11:45-12:00 | 46  | Chiu, Yung-Chia     | Spatial-temporal dynamics of surface water-groundwater interactions in a fragmented alpine headwater stream, Taiwan                                                               |

### Part II · Thursday, 17-09-2026 · 13:00-14:30

| Time        | ID  | Presenting author  | Presentation title                                                                                                                                    |
|-------------|-----|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| 13:00-13:15 | 576 | Barrow, Dale       | Establishing thresholds of potential concern for adaptive management of the Steenbras Wellfield within the Table Mountain Group Aquifer, South Africa |
| 13:15-13:30 | 669 | Gelsinari, Simone  | Quantifying vegetation transpiration from groundwater in Mediterranean forests: an isotope-informed model integration                                 |
| 13:30-13:45 | 632 | Valdambrini, Bruno | Groundwater export and import units mediate Pantanal Wetland hydrological fluxes                                                                      |
| 13:45-14:00 | 455 | Verreydt, Goedele  | An innovative vertical flux sensor for hyporheic exchange monitoring                                                                                  |
| 14:00-14:15 | 112 | Wilson, Paul       | Informing conjunctive water management with groundwater-spring modelling in a sand and gravel catchment                                               |
| 14:15-14:30 | 758 | Santoni, Sébastien | Isotope tracers to assess groundwater connectivity in small Mediterranean coastal lagoons: hydrological insights and methodological recommendations   |

## Session 3.5

Friday, 18-09-2026 · 8 oral presentations

### Complete session · Friday, 18-09-2026 · 10:30-12:30

| Time        | ID  | Presenting author     | Presentation title                                                                                                                                                     |
|-------------|-----|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10:30-10:45 | 755 | Thomas, Stephen David | Stormwater attenuation and enhanced infiltration systems to mitigate flooding                                                                                          |
| 10:45-11:00 | 519 | Mádl-Szőnyi, Judit    | Nature-based aquifer recharge: experiments and models for public understanding                                                                                         |
| 11:00-11:15 | 714 | Leydier, Thomas       | Exploring the potential of nature-based solutions for Mediterranean coastal groundwater-dependant wetlands through a participatory living lab approach                 |
| 11:15-11:30 | 663 | Simon, Szilvia        | Effectiveness of surface water retention through canals in terms of groundwater, in the Danube-Tisza Interfluvium, Hungary                                             |
| 11:30-11:45 | 281 | Troelstra, Veerle     | Multi-exponential retention of pathogens during subsurface transport                                                                                                   |
| 11:45-12:00 | 140 | Puigserver, Diana     | Activation of reactive zones in aquitards for the mobilization and degradation of persistent and emerging contaminants                                                 |
| 12:00-12:15 | 500 | Vigouroux, Rémi       | Multidisciplinary approaches for characterising infiltration in volcanic sinkholes in the context of recurrent flooding of lowlands in northern Rwanda                 |
| 12:15-12:30 | 618 | Jirasirak, Sasin      | Eco-hydrogeological assessment of Nature-based Solutions (NBS) for flood risk reduction in Thailand using isotope fingerprinting technique and SWAT-MODFLOW simulation |

## Session 3.6

Tuesday, 15-09-2026 · 12 oral presentations

### Part I · Tuesday, 15-09-2026 · 14:45-15:45

| Time        | ID  | Presenting author                 | Presentation title                                                                                                                       |
|-------------|-----|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| 14:45-15:00 | 275 | <b>Sbarbati, Chiara</b>           | A game-theoretical approach to sustainable groundwater management: application to a heavily impacted volcanic aquifer                    |
| 15:00-15:15 | 564 | <b>Buela, Leunell Chris</b>       | Adaptive quantification and subsurface monitoring for advancing resilient agricultural technologies (AQUASmart)                          |
| 15:15-15:30 | 305 | <b>Montoro-Paredes, Christian</b> | Sustainability of managed wetlands in semi-arid agricultural coastal areas transitioning from traditional to modern irrigation practices |
| 15:30-15:45 | 441 | <b>Han, Dongmei</b>               | RRV-based assessment of groundwater extraction sustainability in an over-exploited Piedmont Plain                                        |

### Part II · Tuesday, 15-09-2026 · 16:45-18:45

| Time        | ID  | Presenting author                  | Presentation title                                                                                                                                                      |
|-------------|-----|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 16:45-17:00 | 67  | <b>Chilton, John</b>               | Long datasets for improved understanding, management and protection of groundwater                                                                                      |
| 17:00-17:15 | 859 | <b>Dinagde, Tolossa Dabi</b>       | Assessing groundwater pumping energy consumption through spatially distributed numerical groundwater flow modelling                                                     |
| 17:15-17:30 | 947 | <b>Igbinedion Joseph, Jonathan</b> | The dynamic link between economic development and freshwater withdrawal: a global decomposition for country income groups and economic sectors                          |
| 17:30-17:45 | 488 | <b>Roberts, Josh</b>               | Evaluating environmental impacts from abstraction shutdown using the Source Impact Library in UK regional groundwater models                                            |
| 17:45-18:00 | 335 | <b>Marcucci, Victor</b>            | Natural asset management framework for aquifers in the Regional Municipality of Peel, Canada                                                                            |
| 18:00-18:15 | 400 | <b>Grabert, Vicki Kretsinger</b>   | Watershed and ecosystem resiliency in Napa County, California: adaptation, collaboration, and conservation as a way of life                                             |
| 18:15-18:30 | 952 | <b>Huttner, Philipp</b>            | Integrated water balance modeling – sustainable and climate-adapted water management in the Borken water catchment area                                                 |
| 18:30-18:45 | 50  | <b>Liu, Dedi</b>                   | Understanding the roles of climate change, land use and land cover change and water diversion project in modulating water- and carbon-use efficiency in Han River Basin |

## Session 3.8

Tuesday, 15-09-2026 · 8 oral presentations

### Complete session · Tuesday, 15-09-2026 · 16:45-18:45

| Time        | ID  | Presenting author          | Presentation title                                                                                                                             |
|-------------|-----|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| 16:45-17:00 | 552 | <b>Puri, Shammy</b>        | Overtuning “water bankruptcy”: transforming spontaneous to planned conjunctive management                                                      |
| 17:00-17:15 | 553 | <b>Benedicto, Daniela</b>  | Eswatini’s Water Act Reform 2026 – towards strengthened groundwater governance and conjunctive management                                      |
| 17:15-17:30 | 941 | <b>Lautze, Jonathan</b>    | Second transboundary aquifer monitoring: pioneering a critical tool for conjunctive management of shared water                                 |
| 17:30-17:45 | 1   | <b>Erőss, Anita</b>        | A multi-tracer approach to demonstrate groundwater inflows to a soda lake experiencing water-level decline in Hungary                          |
| 17:45-18:00 | 534 | <b>Tóth, György</b>        | Multipurpose utilization of the PANNON XL hydrogeological models used for predictive managements in the Hungarian parts of the Pannonian Basin |
| 18:00-18:15 | 748 | <b>Piasecka, Agnieszka</b> | The process of establishing protected areas of the strategic groundwater resources – Major Groundwater Basins                                  |
| 18:15-18:30 | 840 | <b>Alkaryani, Belkasem</b> | Transboundary aquifer systems in Libya: a comprehensive review of hydrogeology, management, and cooperation frameworks                         |
| 18:30-18:45 | 909 | <b>Baba Sy, Mohamedou</b>  | Integrated transboundary aquifer management in the Sahara-Sahel: lessons from ITTAS and SMAS                                                   |



# Session 4.1

Wednesday, 16-09-2026 · 20 oral presentations

## Part I · Wednesday, 16-09-2026 · 10:00-12:30

| Time        | ID  | Presenting author                     | Presentation title                                                                                                                                                |
|-------------|-----|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10:00-10:15 | 136 | Podgorski, Joel                       | Creating the first global hazard map of manganese contamination of groundwater                                                                                    |
| 10:15-10:30 | 354 | Abdelrahman, Abdelrahman<br>Ahmed Ali | Deep learning-driven 3D hydrogeological modeling and transient groundwater flow modeling in complex, heterogeneous multi-aquifer systems                          |
| 10:30-10:45 | 448 | Fahs, Marwan                          | Physics-Informed Neural Networks for modeling groundwater flow                                                                                                    |
| 10:45-11:00 | 531 | Bajgiran, Maryam Mansouri             | Application of Physics-Informed Neural Networks (PINNs) to seawater intrusion modeling in data-limited environments                                               |
| 11:00-11:15 | 204 | Corthier, Claire                      | Overcoming uncertainty: machine learning and probabilistic modelling for groundwater exploration in data-scarce areas                                             |
| 11:15-11:30 | 380 | Maniero, Pietro                       | Integrating monitoring network data and machine learning for groundwater level prediction: a case study in the Euganean Geothermal Field, Veneto Region, NE Italy |
| 11:30-11:45 | 684 | Inoue, Shun                           | Groundwater-level prediction in a limestone aquifer with a subsurface dam using tree-based ensemble learning                                                      |
| 11:45-12:00 | 639 | Loupos, Konstantinos                  | Explainable assessment of lithium potential in geothermal reservoirs using AI and decision tree models                                                            |
| 12:00-12:15 | 674 | Peeters, Luk                          | Creating large AI training datasets for hydrogeologic generative deep-learning models                                                                             |
| 12:15-12:30 | 557 | Nghiem, Athena                        | Generalizing groundwater geochemistry with machine learning: using new methods on a long-standing arsenic problem                                                 |

## Part II · Wednesday, 16-09-2026 · 14:45-17:15

| Time        | ID  | Presenting author    | Presentation title                                                                                                                                                           |
|-------------|-----|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 14:45-15:00 | 174 | Tseng, Hua-Ting      | A hybrid geostatistical-machine learning framework for three-dimensional hydrogeological structure estimation                                                                |
| 15:00-15:15 | 888 | Živanović, Vladimir  | Hydrochemical clustering and machine learning mapping for urban groundwater suitability and risk assessment in Belgrade                                                      |
| 15:15-15:30 | 683 | Kang, Hyun-Ji        | Machine learning diagnosis of baseflow index discrepancy between digital filters and hydrochemical tracers across South Korea                                                |
| 15:30-15:45 | 261 | Stackelberg, Paul    | Predicting the age of baseflow across the conterminous United States with process-based and random forest modeling                                                           |
| 15:45-16:00 | 184 | Knierim, Katherine   | Random forest predictions of groundwater salinity across the United States                                                                                                   |
| 16:00-16:15 | 593 | Solovey, Tatiana     | Machine learning spatial downscaling of GRACE terrestrial water storage anomalies: application to the Bug River Basin                                                        |
| 16:15-16:30 | 562 | Parker, Timothy K    | California's regional-scale airborne electromagnetic surveys for mapping hydrogeologic features and managed aquifer recharge potential for adaptation to drying climate      |
| 16:30-16:45 | 509 | Nxumalo, Gift Sphiwe | Soil water content prediction for precision irrigation in maize using phenology-aware remote sensing                                                                         |
| 16:45-17:00 | 205 | Jeong, Dohwan        | A real-time monitoring and prediction study on the establishment of an AI-based drinking groundwater quality and quantity management system                                  |
| 17:00-17:15 | 906 | Mahlknecht, Jürgen   | Nationwide machine-learning prediction of arsenic, fluoride, and their joint occurrence in Mexican groundwater: implications for drinking-water exposure and risk management |

## Session 4.2

Thursday, 17-09-2026 · Friday, 18-09-2026 · 24 oral presentations

### Part I · Thursday, 17-09-2026 · 10:00-12:00

| Time        | ID  | Presenting author                    | Presentation title                                                                                                                                   |
|-------------|-----|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10:00-10:15 | 367 | <b>Zaadnoordijk, Willem</b>          | Assessment of groundwater level trends and drought based on the European EUGM database                                                               |
| 10:15-10:30 | 314 | <b>Damato, Adriana</b>               | Statistical insights from long-term time series of radon and hydrogeochemical signatures in groundwater of the Matese Region, Central-Southern Italy |
| 10:30-10:45 | 431 | <b>Zawadzki, Mateusz</b>             | Short-and-dense versus long-and-sparse: trade-offs in groundwater level time series analysis                                                         |
| 10:45-11:00 | 721 | <b>Landi, Laura</b>                  | Exploring climatic drivers of groundwater level changes in the Po Plain (Italy)                                                                      |
| 11:00-11:15 | 394 | <b>Pensa, Claudia</b>                | Century-scale spring discharge trends under climate change in the Southern Apennines (Italy)                                                         |
| 11:15-11:30 | 232 | <b>Sprong, Anouk</b>                 | Temperature-depth profiles at Vitens' riverbank filtration site: Engelse Werk                                                                        |
| 11:30-11:45 | 623 | <b>Autio, Anna</b>                   | Digital twins for groundwater resource management? A case study of the Patamäki esker aquifer                                                        |
| 11:45-12:00 | 808 | <b>Barberá Fornell, Juan Antonio</b> | An integrated karst groundwater monitoring solution to support local water management from springs and wells intended for urban water supply         |

### Part II · Thursday, 17-09-2026 · 13:00-15:00

| Time        | ID  | Presenting author                  | Presentation title                                                                                                                     |
|-------------|-----|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| 13:00-13:15 | 745 | <b>Stigter, Tibor</b>              | Collaborative groundwater monitoring for action in connected environments: from tropical water towers through sand rivers to the coast |
| 13:15-13:30 | 120 | <b>Fernández-Ortega, Jaime</b>     | Use of soft sensors to provide real-time sanitary risk assessment in karst springs captured for drinking water supply                  |
| 13:30-13:45 | 375 | <b>De Filippi, Francesco Maria</b> | A novel groundwater sampling framework incorporating hydrogeological characterization and dynamic purging                              |
| 13:45-14:00 | 802 | <b>Doummar, Joanna</b>             | From assessment to strategy: advancing water quality in Lebanon                                                                        |
| 14:00-14:15 | 652 | <b>Vogt, Marie-Louise</b>          | Water resources monitoring: a key challenge for Lebanon                                                                                |
| 14:15-14:30 | 869 | <b>Kalwa, Fritz</b>                | How to measure groundwater levels with a smartphone? The Groundwater Global app                                                        |
| 14:30-14:45 | 206 | <b>Lim, Jeongwon</b>               | Reframing groundwater monitoring strategies for nuclear facilities: hydrogeological gaps and future directions from Korean cases       |
| 14:45-15:00 | 929 | <b>Piscedda, Fabrizio Antonio</b>  | Monitoring-based validation of GALDIT seawater intrusion vulnerability mapping: the Muravera coastal aquifer (SE Sardinia)             |

### Part III · Friday, 18-09-2026 · 10:30-12:30

| Time        | ID  | Presenting author         | Presentation title                                                                                         |
|-------------|-----|---------------------------|------------------------------------------------------------------------------------------------------------|
| 10:30-10:45 | 125 | <b>Sai Louie, Alice</b>   | Assessing the effect of cable orientation in active-DTS-derived groundwater fluxes                         |
| 10:45-11:00 | 735 | <b>Kumwenda, Steve</b>    | Co-designing an optimized groundwater monitoring network for the Shire Transboundary River Basin           |
| 11:00-11:15 | 31  | <b>Pisani, Christa M.</b> | Springs as sentinels of hydroclimatic variability: discharge dynamics in the Wied il-Bużbież catchment     |
| 11:15-11:30 | 249 | <b>Sartirana, Davide</b>  | Reactive transport modelling revealed the key role of methane oxidation in a groundwater hydrocarbon plume |

| Time               | ID  | Presenting author            | Presentation title                                                                                                                                  |
|--------------------|-----|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>11:30-11:45</b> | 239 | <b>Lictevout, Elisabeth</b>  | Advancing data sharing, dissemination, collaboration and global-scale analysis through the Global Groundwater Monitoring Network                    |
| <b>11:45-12:00</b> | 71  | <b>Lalumbe, Lindelani</b>    | Review and update of the hydrogeological map for sustainable groundwater management: case study of Komani, South Africa                             |
| <b>12:00-12:15</b> | 446 | <b>Mabula, Tholoana</b>      | Assessment of groundwater quality in compliance with SDG 6.3.2 set targets: case study of South Africa                                              |
| <b>12:15-12:30</b> | 14  | <b>Mukhawana, Mxolisi B.</b> | Introducing a multi-index approach for integrated drought monitoring in South Africa using the National Integrated Water Information System (NIWIS) |

## Session 4.3

Wednesday, 16-09-2026 · Thursday, 17-09-2026 · 28 oral presentations

### Part I · Wednesday, 16-09-2026 · 10:00-12:30

| Time        | ID  | Presenting author   | Presentation title                                                                                                                                         |
|-------------|-----|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10:00-10:15 | 668 | Maxwell, Reed       | Advancing integrated continental-scale hydrology through democratized data and ML-accelerated modeling                                                     |
| 10:15-10:30 | 901 | Frampton, Andrew    | Seasonal freeze-thaw controls on groundwater flow and solute transport in an Arctic permafrost hillslope                                                   |
| 10:30-10:45 | 524 | Molson, John        | Numerical modelling of groundwater flow and permafrost evolution over glacial time scales in the context of a deep geological repository for nuclear waste |
| 10:45-11:00 | 183 | Erdocio, Sébastien  | Enhancements in large-scale subsurface flow modeling                                                                                                       |
| 11:00-11:15 | 705 | Batelaan, Okke      | From conceptual to large-scale integrated hydrological modelling                                                                                           |
| 11:15-11:30 | 676 | Hughes, Andrew      | Continental to global-scale modelling to advance the inclusion of groundwater processes                                                                    |
| 11:30-11:45 | 915 | Fahad, Muhammad     | Enabling kilometer-scale global groundwater modeling with performance-portable ParFlow                                                                     |
| 11:45-12:00 | 793 | Scanlon, Bridget R. | Advancing global aquifer mapping for Earth System Modeling, satellite interpretation, and groundwater sustainability assessments                           |
| 12:00-12:15 | 724 | Macdonald, Alan     | What groundwater processes matter? Developing appropriate groundwater typologies for Earth System Models                                                   |
| 12:15-12:30 | 201 | Bishop, Caleb       | 3D chronostratigraphic mapping of the Murray Basin and Australia's groundwater systems                                                                     |

### Part II · Wednesday, 16-09-2026 · 14:45-17:15

| Time        | ID  | Presenting author        | Presentation title                                                                                                                                                        |
|-------------|-----|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 14:45-15:00 | 304 | Iván, Veronika           | Integrated near-surface geophysics for characterizing river-aquifer interactions in a transboundary aquifer: the Vipava/Vipacco River, Soča/Isonzo Basin (Slovenia-Italy) |
| 15:00-15:15 | 670 | Zolezzi-Lopez, Jose      | Spatio-temporal changes of river-aquifer interactions in north-central Bangladesh                                                                                         |
| 15:15-15:30 | 417 | Egli, Nina               | Geological and hydrogeological modeling of the Red River Delta to understand the origin of dissolved arsenic                                                              |
| 15:30-15:45 | 34  | Panthi, Jeeban           | Integrating geophysics and numerical modeling to predict groundwater storage change in region with thick vadose zone                                                      |
| 15:45-16:00 | 506 | Franco, Federico Emanuel | Diagnosing groundwater storage dynamics through a Budyko-based framework: a comparative analysis of Alpine and Mediterranean catchments                                   |
| 16:00-16:15 | 241 | Hinton, Rebekah          | Collaborative groundwater modelling for northern Uganda                                                                                                                   |
| 16:15-16:30 | 762 | Hughes, Joseph           | Groundwater pumpage-induced streamflow capture in the continental United States                                                                                           |
| 16:30-16:45 | 681 | Markovich, Katherine H.  | Exploring the promise of InSAR ground deformation in regional groundwater simulation                                                                                      |
| 16:45-17:00 | 486 | Van Putte, Niels         | Continuous in situ groundwater flux monitoring in dynamic aquifer systems: validation of the iFLUX sensor                                                                 |
| 17:00-17:15 | 779 | Pastorella, Anna Eliana  | Marine electromagnetic constraints on the geometry and preservation of offshore freshened groundwater and submarine permafrost                                            |

### Part III · Thursday, 17-09-2026 · 13:00-15:00

| Time               | ID  | Presenting author                  | Presentation title                                                                                                                                 |
|--------------------|-----|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>13:00-13:15</b> | 309 | <b>Marin Rivera, Carlos Felipe</b> | Unravelling response times in regional groundwater systems: implications for the past and the future                                               |
| <b>13:15-13:30</b> | 236 | <b>Nagheli, Setareh</b>            | Identifying relative sources of groundwater recharge in the Indus alluvial aquifer using a new canal module within a coupled VIC-groundwater model |
| <b>13:30-13:45</b> | 193 | <b>Birk, Steffen</b>               | Response of groundwater levels to interactions between recharge and irrigation in a changing climate (Seewinkel, Austria)                          |
| <b>13:45-14:00</b> | 48  | <b>Wang, Xihua</b>                 | Multi-indicators to investigate the spatiotemporal effect of groundwater-lake interaction on lake development                                      |
| <b>14:00-14:15</b> | 144 | <b>Chesnaux, Romain</b>            | Analytical hydrogeology of unconfined Dupuit-type aquifers                                                                                         |
| <b>14:15-14:30</b> | 580 | <b>Acworth, Ian</b>                | Arid-zone recharge revisited                                                                                                                       |
| <b>14:30-14:45</b> | 393 | <b>King, Jude</b>                  | From global datasets to risk maps: an integrated framework for 3D modelling of coastal groundwater salinity                                        |
| <b>14:45-15:00</b> | 916 | <b>Mohammadi, Kourosh</b>          | Identifying dominant hydroclimatic drivers of groundwater variability using machine learning-based feature selection                               |

## Session 4.4

Thursday, 17-09-2026 · Friday, 18-09-2026 · 16 oral presentations

### Part I · Thursday, 17-09-2026 · 13:00-15:00

| Time        | ID  | Presenting author         | Presentation title                                                                                                                                                 |
|-------------|-----|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 13:00-13:15 | 273 | <b>Mahieu, Anthony</b>    | Compositional PCA and t-SNE radar signatures toward an integrated hydrogeological assessment of PFAS in a fractured chalk aquifer                                  |
| 13:15-13:30 | 192 | <b>Patel, Raghav</b>      | A national-scale preliminary overview study of poly- and perfluoroalkyl substances (PFAS) occurrence in aquatic environments of England, UK                        |
| 13:30-13:45 | 58  | <b>Nakagawa, Kei</b>      | Vertical distribution of PFAS in coastal sediments of Ōmura Bay: a proxy for long-term anthropogenic contamination from terrestrial sources                        |
| 13:45-14:00 | 10  | <b>November, Jeroen</b>   | Addressing PFAS contamination in the groundwater abstraction site 'Heverlee Abdij' (De Watergroep, Belgium): monitoring, challenges, and strategic responses       |
| 14:00-14:15 | 22  | <b>Ding, Zhenyu</b>       | The pollutants distribution profiles and health risks of groundwater and soil around the waste landfills: a study of 12 waste landfills in Guangxi Province, China |
| 14:15-14:30 | 218 | <b>Stahl, Mason</b>       | Hydrologic controls on arsenic contamination of rice and groundwater: insights from Cambodia                                                                       |
| 14:30-14:45 | 55  | <b>Goni, Ibrahim Baba</b> | Heavy metals contamination in groundwater and associated human health risk in semi-arid Katsina State, northwestern Nigeria                                        |
| 14:45-15:00 | 348 | <b>Sun, Yuanyuan</b>      | Long-term stabilization of chromite ore processing residue via elemental sulfur disproportionation for groundwater contamination mitigation                        |

### Part II · Friday, 18-09-2026 · 10:30-12:30

| Time        | ID  | Presenting author      | Presentation title                                                                                                                 |
|-------------|-----|------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| 10:30-10:45 | 474 | <b>Li, Lu</b>          | Migration mechanism and health risk warning of polycyclic aromatic hydrocarbons in karst groundwater of industrial cities in China |
| 10:45-11:00 | 146 | <b>Li, Zhuolin</b>     | Spatial variability of groundwater nitrate and fecal sterol signatures in an intensively farmed area of western Japan              |
| 11:00-11:15 | 251 | <b>Zanotti, Chiara</b> | Time-series clustering to assess trend reversals in groundwater nitrate concentrations at a regional scale                         |
| 11:15-11:30 | 138 | <b>Tackley, Hayden</b> | Estuaries as amplifiers of coastal salinization: implications for soil, groundwater, and agriculture                               |
| 11:30-11:45 | 549 | <b>Elçi, Alper</b>     | Evaluation of bio-treated manure application impact on groundwater quality using advanced reactive transport models                |
| 11:45-12:00 | 312 | <b>Mali, Nina</b>      | Improved methods for assessing microplastic transport in groundwater: the GWMicroPlast project                                     |
| 12:00-12:15 | 210 | <b>Liu, Yaci</b>       | Microplastics in multiple environmental media along a land-sea continuum                                                           |
| 12:15-12:30 | 286 | <b>Diene, Mandiaye</b> | Emerging organic contaminants in urban surface and groundwater systems: the case of Thiaroye, Dakar (Senegal)                      |

## Session 4.5

Friday, 18-09-2026 · 8 oral presentations

### Complete session · Friday, 18-09-2026 · 10:30-12:30

| Time        | ID  | Presenting author                | Presentation title                                                                                                                                       |
|-------------|-----|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10:30-10:45 | 360 | <b>Bense, Victor</b>             | Quantifying pumping-induced vertical groundwater fluxes using transient temperature–depth profiles                                                       |
| 10:45-11:00 | 440 | <b>Tomita, Shohei</b>            | Development of a groundwater flow estimation method using cooling thermal response test focused on freezing–thawing processes                            |
| 11:00-11:15 | 782 | <b>Benoit, Nicolas</b>           | Assessing a sub-river talik aquifer in continuous permafrost: implications for potential water supplies in Arctic regions                                |
| 11:15-11:30 | 73  | <b>Asalu, David</b>              | Data-driven assessment of groundwater temperature effects on redox-sensitive Fe and Mn in the Israeli coastal aquifer: implications under future warming |
| 11:30-11:45 | 159 | <b>Moeck, Christian</b>          | Groundwater warming in Switzerland: trend analyses, seasonal dynamics, and hydrogeological controls                                                      |
| 11:45-12:00 | 351 | <b>Berta, Alessandro</b>         | Practical implications of urban modelling for open-loop geothermal systems: a MODFLOW 6–FEFLOW 10 Comparison from an Italian case study                  |
| 12:00-12:15 | 919 | <b>Previati, Alberto</b>         | Risk-based geothermal planning in the Milan urban area using surrogate modeling                                                                          |
| 12:15-12:30 | 350 | <b>Maréchal, Jean Christophe</b> | Karst springs as cold refuges in a warming world                                                                                                         |

## Session 4.6

Friday, 18-09-2026 · 8 oral presentations

### Complete session · Friday, 18-09-2026 · 10:30-12:30

| Time        | ID  | Presenting author  | Presentation title                                                                                                                                                 |
|-------------|-----|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10:30-10:45 | 717 | Zavridou, Efthymia | "Groundwater sAlinizaTion and pollution AsseSsmEnt Tool" (DATASET) index, a holistic vulnerability assessment framework specifically designed for coastal aquifers |
| 10:45-11:00 | 776 | Ez-Zaouy, Yassine  | Multi-site assessment of open-access global data for coastal groundwater vulnerability mapping                                                                     |
| 11:00-11:15 | 137 | Baják, Petra       | Assessing groundwater vulnerability to nitrate contamination in a rice-growing district (northern Italy) using generalized linear regression models                |
| 11:15-11:30 | 483 | Fancello, Vittorio | Surface-groundwater investigations to support ex-ante evaluations of water withdrawals                                                                             |
| 11:30-11:45 | 555 | Hall, Ben          | Advanced recharge analysis to support groundwater management: Western Port Basin, Australia                                                                        |
| 11:45-12:00 | 911 | Shi, Wenwen        | Groundwater pollution risk assessment based on GIS and game theory combination weighting: a case study of the oasis area in the Hotan River Basin                  |
| 12:00-12:15 | 110 | Zhu, Yuchen        | A dual perspective on soil heavy-metal ecological risk: parallel pathways of intrinsic intensity and spatial spillover                                             |
| 12:15-12:30 | 622 | Liu, Jun           | Hybrid model for enhanced groundwater level estimation                                                                                                             |



## Session 4.8

Wednesday, 16-09-2026 · 18 oral presentations

### Part I · Wednesday, 16-09-2026 · 10:00-12:30

| Time        | ID  | Presenting author           | Presentation title                                                                                                                                                          |
|-------------|-----|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10:00-10:15 | 370 | Cavana, Elettra             | Optimizing monitoring effort for numerical modelling of fractured sedimentary aquifers                                                                                      |
| 10:15-10:30 | 254 | Mosquera, John              | Conceptual hydrogeological model testing and refinement using numerical modelling in a complex glaciated environment                                                        |
| 10:30-10:45 | 395 | Guillemoto, Quentin         | Hydrogeological modelling of the Nord-Artois-Picardie Chalk hydrosystem for sustainable water management: multidisciplinary approach for conceptual and structural controls |
| 10:45-11:00 | 479 | Rolf, Lukas                 | Characterizing a multilayer aquifer system with a multiphase pumping test using a shifted reference time approach                                                           |
| 11:00-11:15 | 246 | Fekri, Maziar               | Trustworthy recharge estimates from Pastas: a practical framework for robust recharge estimation from time series analysis of groundwater level data                        |
| 11:15-11:30 | 772 | Marin Rivera, Carlos Felipe | How can radiocarbon data assimilation improve estimates of sustainable abstraction volumes in confined aquifer systems? A case study from the Aquitaine Basin               |
| 11:30-11:45 | 315 | Standen, Kath               | Efficient adjoint analysis for estimation of stream capture to support groundwater abstraction management in the UK                                                         |
| 11:45-12:00 | 235 | Olasz, Tamás                | Decision support tool in GoldSim for managing and optimizing remediation activities                                                                                         |
| 12:00-12:15 | 196 | Fienen, Michael             | Beyond streamflow: managing tradeoffs between economy and ecology in high-capacity well evaluation                                                                          |
| 12:15-12:30 | 427 | Comte, Jean-Christophe      | Estimating aquifer dual-porosity transport properties through geoelectrical imaging of road salt plumes                                                                     |

### Part II · Wednesday, 16-09-2026 · 14:45-16:45

| Time        | ID  | Presenting author      | Presentation title                                                                                                                     |
|-------------|-----|------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| 14:45-15:00 | 422 | Petitjean, Zoé         | Combining geological knowledge and observations to improve predictions of transport models                                             |
| 15:00-15:15 | 267 | Moghim Benhangi, Saman | Disentangling geological and parametric contributions to predictive uncertainty in groundwater flow models: a variance-based framework |
| 15:15-15:30 | 675 | García-Gámez, Marta    | Geological characterization with stochastic modeling for a managed aquifer recharge site                                               |
| 15:30-15:45 | 81  | Speijer, Lara          | Can groundwater flux measurements constrain uncertainties in groundwater flow modelling for managed aquifer recharge assessment?       |
| 15:45-16:00 | 128 | Hugman, Rui            | Model emulation made simple with pyEMU                                                                                                 |
| 16:00-16:15 | 539 | Nienhuis, Philip       | Effects of aquifer scheme choices on calibration reliability                                                                           |
| 16:15-16:30 | 883 | Abdelshahid, Steven    | Optimized geometric selection algorithms for large 3D datasets in groundwater modelling                                                |
| 16:30-16:45 | 893 | Naumov, Emese          | The role of geophysical data processing and integration in reducing uncertainty in groundwater modeling                                |

# Session 5.1

Thursday, 17-09-2026 · Friday, 18-09-2026 · 17 oral presentations

## Part I · Thursday, 17-09-2026 · 10:00-12:15

| Time        | ID  | Presenting author              | Presentation title                                                                                                                                                                     |
|-------------|-----|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10:00-10:15 | 272 | <b>Agudelo Mendieta, Tania</b> | Climate Collaboratorium: transdisciplinary groundwater modelling to support community-based climate change adaptation, case study of the mining region of Rietschen (Görlitz, Germany) |
| 10:15-10:30 | 265 | <b>Campanya, Joan</b>          | Groundwater level forecasting for climate change adaptation in Ireland                                                                                                                 |
| 10:30-10:45 | 242 | <b>Arinaitwe, Miriam</b>       | Climate change impacts on groundwater recharge in the Mitchells Plain West Catchment of the Cape Flats Aquifer                                                                         |
| 10:45-11:00 | 507 | <b>Ndakola, Hilja</b>          | Assessing the impacts of climate and land use/land cover change on groundwater recharge and discharge patterns – a case study of the Windhoek Aquifer, Namibia                         |
| 11:00-11:15 | 316 | <b>Gros, Emile</b>             | Impact of climate change on the river flow dynamics over recent decades on a tropical volcanic island: the northeast of Martinique                                                     |
| 11:15-11:30 | 108 | <b>Bhattacharya, Ankita</b>    | Impact of groundwater in compound flood events: a case study of the Conwy Estuary in Wales                                                                                             |
| 11:30-11:45 | 653 | <b>Bosserelle, Amandine</b>    | Mapping New Zealand coastal shallow groundwater vulnerability to sea-level rise                                                                                                        |
| 11:45-12:00 | 900 | <b>Dorofeev, Ilia</b>          | Evaluation of the impact of agricultural practices on groundwater levels, mineralization and salt accumulation in the Republic of Karakalpakstan, Uzbekistan                           |
| 12:00-12:15 | 607 | <b>Kovács, Balázs</b>          | Decline of groundwater resources in the Pannonian Basin – the impact of climate change on a vulnerable aquifer system                                                                  |

## Part II · Friday, 18-09-2026 · 10:30-12:30

| Time        | ID  | Presenting author           | Presentation title                                                                                                                                   |
|-------------|-----|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10:30-10:45 | 224 | <b>Schuler, Philip</b>      | Mapping the vulnerability of groundwater to drought using ensemble-based reconstructed groundwater level time series                                 |
| 10:45-11:00 | 408 | <b>Redaelli, Agnese</b>     | Irrigation practice changes versus meteorological drought: a numerical modeling assessment of aquifer depletion                                      |
| 11:00-11:15 | 734 | <b>Boutt, David</b>         | The emerging threat of water table rise                                                                                                              |
| 11:15-11:30 | 510 | <b>Gizzi, Martina</b>       | Hydrogeological analysis of a mountain spring in the Aosta Valley (NW Italy): Insights from harmonic and isotopic approaches                         |
| 11:30-11:45 | 389 | <b>Mourot, Frederique</b>   | Enhancing groundwater recharge projections insights by learning from the past                                                                        |
| 11:45-12:00 | 155 | <b>Upton, Kirsty</b>        | Forecasting yields from public water supply boreholes                                                                                                |
| 12:00-12:15 | 871 | <b>Mohammed, Sarkhel H.</b> | An integrated framework for groundwater potential mapping and spatiotemporal trend assessment in the Erbil Regional Groundwater Basin, northern Iraq |
| 12:15-12:30 | 40  | <b>Szűcs, Péter</b>         | Possible solutions for the extreme water management situations in Hungary                                                                            |

## Session 5.2

Thursday, 17-09-2026 · 7 oral presentations

### Complete session · Thursday, 17-09-2026 · 10:00-11:45

| Time        | ID  | Presenting author   | Presentation title                                                                                                                                           |
|-------------|-----|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10:00-10:15 | 16  | Mumberg, Tabea      | Understanding PFAS in MAR systems – insights into seasonal variations, mobility, and local sources                                                           |
| 10:15-10:30 | 135 | Chow, Reynold       | Enhancing groundwater resilience to drought through integrated modelling, Earth Observation and managed aquifer recharge: insights from the AQUIGROW project |
| 10:30-10:45 | 170 | Schultze, Anne      | Securing water supply for agriculture with storm-water based managed aquifer recharge                                                                        |
| 10:45-11:00 | 457 | De Louw, Perry G.B. | Large-scale groundwater abstraction beneath a freshwater lake for long-term sustainable drinking water supply                                                |
| 11:00-11:15 | 43  | Brody, Sigal        | Quantifying effluent residence time in a large-scale SAT system: insights from a large-scale field tracer test                                               |
| 11:15-11:30 | 604 | Janik, Krzysztof    | Integrated monitoring reveals hydrochemical shifts in a riverbank filtration system under sustained river impoundment                                        |
| 11:30-11:45 | 387 | Liu, Fengying       | Research on key areas of major aquifers and groundwater reserves in China                                                                                    |

## Session 5.3

Tuesday, 15-09-2026 · 18 oral presentations

### Part I · Tuesday, 15-09-2026 · 10:30-12:30

| Time        | ID  | Presenting author                | Presentation title                                                                                                    |
|-------------|-----|----------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| 10:30-10:45 | 885 | La Vigna, Francesco              | Revealing Rome's hidden waters: innovation and urban hydrogeology in CARG Thematic Sheet No. 374                      |
| 10:45-11:00 | 619 | Batelaan, Okke                   | Conceptual uncertainty: the elephant in the room                                                                      |
| 11:00-11:15 | 464 | Di Curzio, Diego                 | Transient time series analysis to identify anomalous aquifer recharge in the Shenzhen Megacity, China                 |
| 11:15-11:30 | 598 | Schirmer, Mario                  | Changes in groundwater recharge under urban development: an increase in quantity is the rule                          |
| 11:30-11:45 | 290 | Javaran, Mohammad Reza Hajizadeh | 3D framework for integrated urban groundwater management                                                              |
| 11:45-12:00 | 882 | Moraru, Irina                    | Integrated urban groundwater modelling for sustainable subsurface planning: Tei area, Bucharest case study            |
| 12:00-12:15 | 227 | Hastreiter, Nele                 | Warming up the subsurface: how buildings shape underground temperatures in changing urban environments                |
| 12:15-12:30 | 301 | Egidio, Elena                    | Assessing and comparing subsurface urban heat island intensity across European cities: towards a harmonised framework |

### Part II · Tuesday, 15-09-2026 · 14:45-15:45

| Time        | ID  | Presenting author       | Presentation title                                                                                                                                                                   |
|-------------|-----|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 14:45-15:00 | 382 | Dohmworth, Verena       | Subsurface thermal patterns                                                                                                                                                          |
| 15:00-15:15 | 302 | Hirsch, Florian         | Groundwater reservoirs as central components of a sponge city: basic principles, concepts and new approaches                                                                         |
| 15:15-15:30 | 358 | Jehanno, Lucas          | Characterization of uncontrolled groundwater drainage by sewer network in an urban catchment, using monitoring data and modelling: a case study in a chalk aquifer (northern France) |
| 15:30-15:45 | 845 | Kazi Matin Uddin, Ahmed | Transformation of Gazipur from agricultural hub to industrial-urban hotspot and consequential adverse impacts on underlying groundwater                                              |

### Part III · Tuesday, 15-09-2026 · 16:45-18:15

| Time        | ID   | Presenting author      | Presentation title                                                                                                                 |
|-------------|------|------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| 16:45-17:00 | 829  | Wang, Jianxiu          | New-stage groundwater recharge strategy optimization to control land subsidence in Shanghai                                        |
| 17:00-17:15 | 682  | Maldaner, Carlos       | Fiber optic distributed temperature sensing deployment scenarios for high-resolution hydrogeologic characterization and monitoring |
| 17:15-17:30 | 332  | Taucare, Matías        | Hydrogeochemical responses to urbanisation in an estuarine aquifer: insights from Río Valdivia Estuary (southern Chile)            |
| 17:30-17:45 | 1001 | Aceves Padilla, Danael | Urban growth and groundwater recharge decline in Monterrey                                                                         |
| 17:45-18:00 | 752  | Freitas, Livia         | Looking at the micro level to address macro nitrate contamination problems in the Bauru Aquifer System (Brazil)                    |
| 18:00-18:15 | 511  | Makahane, Rendani      | Assessing shallow groundwater occurrence in Lebowa Granite Suite: Winterveld, North West, South Africa                             |

## Session 5.4

Wednesday, 16-09-2026 · Thursday, 17-09-2026 · 28 oral presentations

### Part I · Wednesday, 16-09-2026 · 10:00-12:30

| Time        | ID  | Presenting author                 | Presentation title                                                                                                                                                   |
|-------------|-----|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10:00-10:15 | 62  | <b>Pearson, Andy</b>              | New highlights on MAR implementation worldwide from the 2026 update of the Managed Aquifer Recharge (MAR) Portal                                                     |
| 10:15-10:30 | 222 | <b>Alam, Mohammad Faiz</b>        | Assessment of small-scale managed aquifer recharge (MAR) in India                                                                                                    |
| 10:30-10:45 | 515 | <b>Baumann, Thomas</b>            | Stormwater managed aquifer recharge in pre-alpine catchments                                                                                                         |
| 10:45-11:00 | 320 | <b>Meggiorin, Mara</b>            | Managed aquifer recharge and volumetric water benefit accounting for sustainable water management in northeast Italy                                                 |
| 11:00-11:15 | 229 | <b>Petitta, Marco</b>             | Hydrogeological monitoring for the assessment of managed aquifer recharge (MAR) techniques: a case study in the Alban Hills region (Rocca Priora, Rome, Italy)       |
| 11:15-11:30 | 388 | <b>Montecinos, Claudia Medina</b> | From science to policy: an action plan to adopt agricultural managed aquifer recharge as a drought adaptation measure in Lombardy, Italy                             |
| 11:30-11:45 | 25  | <b>Engelhardt, Irina</b>          | Managed aquifer recharge in confined multi-layer aquifers: a methodological framework for drought-resilient water management                                         |
| 11:45-12:00 | 716 | <b>Prayag, Ankita</b>             | Integrated hydrogeophysics and hydrogeological modelling to support managed aquifer recharge and climate-resilient groundwater supply                                |
| 12:00-12:15 | 649 | <b>Stefan, Catalin</b>            | Assessing the feasibility of MAR for climate-resilient water supply in humanitarian contexts: the case of Dollow, Somalia                                            |
| 12:15-12:30 | 811 | <b>Chen, Zhao</b>                 | An integrative approach focusing on MAR to increase the climate resilience of the water supply in the European city of Görlitz-Zgorzelec on the German-Polish border |

### Part II · Wednesday, 16-09-2026 · 14:45-17:15

| Time        | ID  | Presenting author                     | Presentation title                                                                                                                             |
|-------------|-----|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| 14:45-15:00 | 57  | <b>Lee, Sang-II</b>                   | Groundwater dams as a strategy for water supply diversification: efforts in South Korea                                                        |
| 15:00-15:15 | 333 | <b>Gutierrez, Alexis</b>              | Enhancing water supply through MAR systems at Jijiga, Somali Region, Ethiopia                                                                  |
| 15:15-15:30 | 648 | <b>Matta, Jay</b>                     | Enhancing groundwater sustainability in northern Iraq: lessons from managed aquifer                                                            |
| 15:30-15:45 | 139 | <b>Augustin, Lea</b>                  | Automated operation of a rural stormwater-based MAR scheme                                                                                     |
| 15:45-16:00 | 540 | <b>Hartog, Niels</b>                  | Considerations for well design and operation of aquifer storage and recovery of fresh water in saline aquifers                                 |
| 16:00-16:15 | 297 | <b>Marroquín, Marylidia Villagrán</b> | Aquifer storage, transport and recovery for water reuse: a case study of the NATALIE project in Belgium                                        |
| 16:15-16:30 | 542 | <b>Schout, Gilian</b>                 | ASR well-field optimization: injection rates, well distancing and recovery efficiency                                                          |
| 16:30-16:45 | 861 | <b>Benavides Höglund, Nikolas</b>     | A combined Pastas and MODFLOW approach for characterizing groundwater recharge and MAR potential on Öland                                      |
| 16:45-17:00 | 525 | <b>Mamo, Julian</b>                   | Valley dams as in-channel MAR in Mediterranean intermittent rivers and ephemeral streams: monitoring recession and recharge in Malta           |
| 17:00-17:15 | 898 | <b>Valdes, Danièle</b>                | RECHARGE project: opportunities and limits of NWRMs to promote groundwater recharge: toward a transdisciplinary co-constructed research-action |

### Part III · Thursday, 17-09-2026 · 10:00-12:00

| Time               | ID  | Presenting author             | Presentation title                                                                                                                                                 |
|--------------------|-----|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>10:00-10:15</b> | 660 | <b>Ridavits, Tibor</b>        | A MAR-supported riverbank filtration system – challenges and opportunities                                                                                         |
| <b>10:15-10:30</b> | 501 | <b>Grischek, Thomas</b>       | Effects of climate change and pond management on bank filtration at Sdier, Germany                                                                                 |
| <b>10:30-10:45</b> | 567 | <b>Colombo, Paolo</b>         | Irrigation-groundwater interactions as allies in climate change adaptation: results from an Ag-MAR application                                                     |
| <b>10:45-11:00</b> | 426 | <b>Panday, Sorab</b>          | Decision support tools for scientific storytelling                                                                                                                 |
| <b>11:00-11:15</b> | 327 | <b>Rodriguez Lache, Erika</b> | Assessing the impact of adjustable weirs on groundwater availability and crop performance in Flanders, Belgium.                                                    |
| <b>11:15-11:30</b> | 520 | <b>Mustafa, Syed</b>          | MAR as a sustainable solution? Co-creating groundwater management strategies to improve salinity resilience in deltas                                              |
| <b>11:30-11:45</b> | 392 | <b>Li, Zhengyan</b>           | Enhancing baseflow resilience through managed aquifer recharge: quantifying groundwater system response to ecological water replenishment in the North China Plain |
| <b>11:45-12:00</b> | 386 | <b>Karthikeyan, Brindha</b>   | Assessment of groundwater recharge by irrigation tanks in weathered hard rock regions                                                                              |

# Session 6.1

Tuesday, 15-09-2026 · 12 oral presentations

## Part I · Tuesday, 15-09-2026 · 10:30-12:30

| Time        | ID  | Presenting author            | Presentation title                                                                                                                                                                                                 |
|-------------|-----|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10:30-10:45 | 543 | Adamson, James               | Groundwater mapping interrupted: lessons from two contrasting hydrogeologic regions in Haiti                                                                                                                       |
| 10:45-11:00 | 467 | Petre, Marie-Amélie          | Governance pathways for transboundary groundwater cooperation: lessons from Zambia                                                                                                                                 |
| 11:00-11:15 | 99  | Dodd, Carla                  | The thirst for data – establishing a robust O- and H-isotope record for a water-stressed region in the southern hemisphere                                                                                         |
| 11:15-11:30 | 161 | Rakotondrabe, Miora Harivony | Hydrogeological monitoring of water resources during Kéré drought events in Androy, southern Madagascar (1991 and 2015)                                                                                            |
| 11:30-11:45 | 667 | Holliday, Laura              | Hydrogeological typologies of the aquifer systems underlying Lagos State, Nigeria                                                                                                                                  |
| 11:45-12:00 | 620 | Händel, Falk                 | Numerical water balance and groundwater modeling as part of regional MAR feasibility assessment in Dollow, Somalia                                                                                                 |
| 12:00-12:15 | 330 | van den Berg, Harmen         | Hydrogeology beyond the textbook – verifying deep aquifer potential in arid Somalia                                                                                                                                |
| 12:15-12:30 | 287 | Mondal, Mijanur              | Integrating isotopes, hydrogeochemistry, and the water-society nexus to evaluate coastal aquifer salinization and water security under hydroclimatic and socioeconomic stress: insights from the Indian Sundarbans |

## Part II · Tuesday, 15-09-2026 · 14:45-15:45

| Time        | ID  | Presenting author    | Presentation title                                                                                                             |
|-------------|-----|----------------------|--------------------------------------------------------------------------------------------------------------------------------|
| 14:45-15:00 | 823 | Evans, Paul          | Groundwater for water security in the agro-pastoral LMIC setting of northern Côte d'Ivoire                                     |
| 15:00-15:15 | 404 | Mishra, Pratibha     | Are the groundwater levels recovering in the Indo-Gangetic Basin?                                                              |
| 15:15-15:30 | 905 | Ewers, Lorenz        | Beyond infrastructure: structuring social engagement for sustainable MAR in fragile contexts                                   |
| 15:30-15:45 | 824 | Koshliakova, Tetiana | Groundwater depletion following the destruction of the Kakhovka Dam (Ukraine): hydrogeological consequences and emerging risks |

## Session 6.2

Tuesday, 15-09-2026 · 12 oral presentations

### Part I · Tuesday, 15-09-2026 · 10:30-12:30

| Time        | ID  | Presenting author | Presentation title                                                                                                               |
|-------------|-----|-------------------|----------------------------------------------------------------------------------------------------------------------------------|
| 10:30-10:45 | 49  | Adams, Shafick    | Groundwater as a socio-hydrogeological system: lessons from community-led multiple-use water services in rural South Africa      |
| 10:45-11:00 | 447 | Black, Alastair   | When groundwater models leave the modeller: evidence, precaution and decision                                                    |
| 11:00-11:15 | 621 | Zambelli, Barbara | Microplastics in groundwater: exploring the risk perception of domestic water users in Italy                                     |
| 11:15-11:30 | 472 | Plagnes, Valérie  | From hydrogeology to perception: a participatory framework for co-producing water knowledge in a risk-prone mountain territory   |
| 11:30-11:45 | 399 | Lee, Shih-Yao     | Participatory groundwater management in a subsidence-prone region: from focus groups to scenario workshops in Yunlin, Taiwan     |
| 11:45-12:00 | 188 | Cuthbert, Mark    | What is groundwater? Finding a way back to the source of a modern abstraction                                                    |
| 12:00-12:15 | 238 | Erostate, Mélanie | 20,000 years underground, today in your glass: turning groundwater age into a public awareness movement in southwest France      |
| 12:15-12:30 | 70  | Gleeson, Tom      | Groundwater connected art: practicing arts-based research to enrich how hydrogeology engages people, place and other disciplines |

### Part II · Tuesday, 15-09-2026 · 14:45-15:45

| Time        | ID  | Presenting author    | Presentation title                                                                                                                                                      |
|-------------|-----|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 14:45-15:00 | 687 | Sadat-Noori, Mahmood | Who produces groundwater knowledge? Global inequities and implications for sustainable water management                                                                 |
| 15:00-15:15 | 415 | Moreno, Miguel       | Drought in the Central American Dry Corridor: a comparative regionalism perspective on impacts and the need for transboundary groundwater-based solutions               |
| 15:15-15:30 | 338 | Guzman-Rojo, Mónica  | Design principles and early evaluation of science communication resources for post-wildfire groundwater resilience in Bolivia: a pilot case in the Chiquitania lowlands |
| 15:30-15:45 | 326 | Zipper, Sam          | Groundwater stress and emerging solutions in the U.S. High Plains Aquifer                                                                                               |



## Session 6.4

Thursday, 17-09-2026 · 8 oral presentations

### Complete session · Thursday, 17-09-2026 · 13:00-15:00

| Time        | ID  | Presenting author    | Presentation title                                                                                                                            |
|-------------|-----|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| 13:00-13:15 | 529 | Kalwij, Ineke        | The Groundwater Project: global groundwater education                                                                                         |
| 13:15-13:30 | 101 | Missteart, Bruce     | Hydrogeology education: the role of groundwater engineering                                                                                   |
| 13:30-13:45 | 747 | Woźnicka, Małgorzata | Hydrogeological education – optional knowledge or a higher necessity?                                                                         |
| 13:45-14:00 | 453 | Sandhu, Cornelius    | Development of higher education modules on managed aquifer recharge – a nexus approach                                                        |
| 14:00-14:15 | 722 | Tóth, Ádám           | Educating for the green transition: embedding GreenComp in groundwater education                                                              |
| 14:15-14:30 | 517 | Kuosmanen, Niina     | Collaborative hydrogeology field school: integrating teaching, research, and professional training                                            |
| 14:30-14:45 | 74  | Sapiano, Manuel      | The Thirsty Knight – groundwater management in historic times                                                                                 |
| 14:45-15:00 | 944 | Erhardt, Ildikó      | Students' knowledge and attitudes towards groundwater and nature-based managed aquifer recharge – effects of a short educational intervention |

## Session 6.5

Tuesday, 15-09-2026 · 8 oral presentations

### Complete session · Tuesday, 15-09-2026 · 10:30-12:30

| Time               | ID  | Presenting author                 | Presentation title                                                                                                                                                       |
|--------------------|-----|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>10:30-10:45</b> | 352 | <b>Broda, Stefan</b>              | Pan-European groundwater assessment enabled by the European Groundwater Monitoring (EUGM) Database                                                                       |
| <b>10:45-11:00</b> | 764 | <b>Guardiola Albert, Carolina</b> | Operational hydrogeology in extreme events: contributions from the disaster and emergency advisory group of the Geological and Mining Institute of Spain (IGME-CSIC)     |
| <b>11:00-11:15</b> | 651 | <b>Gourcy, Laurence</b>           | Water resources expert group of the Geological Surveys of Europe – role and activities                                                                                   |
| <b>11:15-11:30</b> | 664 | <b>Kuczynska, Anna</b>            | Hydrogeological interventions – the role of the Polish Geological Survey in supporting governmental institutions, local governments and society in field of hydrogeology |
| <b>11:30-11:45</b> | 578 | <b>Püspöki, Zoltán</b>            | Geological mapping of unconfined Quaternary fluvial aquifers aided by log-facies correlation and climato-stratigraphic methods                                           |
| <b>11:45-12:00</b> | 154 | <b>Gourcy, Laurence</b>           | Construction of groundwater vulnerability maps in a river basin with few data on groundwater and pressure in the Dominican Republic                                      |
| <b>12:00-12:15</b> | 763 | <b>Guardiola Albert, Carolina</b> | Hydrogeologists at the Spanish science-policy interface                                                                                                                  |
| <b>12:15-12:30</b> | 839 | <b>Hinsby, Klaus</b>              | EuroGeoSurveys: bridging geoscience and policy for groundwater and subsurface integrated spatial planning in a changing world                                            |