River Basins 2024 Budapest

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Program

Tuesday, 4th June

8:00 – 9:00	Registration
9:00 – 9:10	**Welcome and opening** *Miklós Patziger, Head of the Department of Sanitary and Environmental Engineering, BME*
	Monitoring — **Chair: Adrienne Clement, BME**
9:10 – 9:40	**Influence of sampling strategies on the assessment of concentrations and loads of trace contaminants in surface waters** *Ottavia Zoboli – TU Wien, Austria*
9:40 – 10:10	**Particle-bound nutrients and trace substances in small streams: Implications for the aquatic environment and presentation of a novel sampling method** – *Peter Flödl – BOKU Wien, Austria*
10:10 – 10:40	**Trace substance monitoring at the intersection of urban drainage and an urban river in Karlsruhe, Germany** *Lukas Kopp – Karlsruhe Institute of Technology, Germany*
10:40 – 10:45	Summary of the Session
10:45 – 11:10	**Coffee break**
	Monitoring and modelling I — **Chair: Ottavia Zoboli, TU-Wien**
11:10 – 11:40	**Benchmarking the persistence of organic micropollutants in large European rivers** *Mark Honti - HUN-REN–BME Water Research Group, Hungary*
11:40 – 12:10	**PFAS transport and retention during riverbank filtration and in saturated columns** – *Thomas James Oudega - TU Wien, Austria*
12:10 – 12:40	**Exploring human-vector dynamics using insect repellent concentrations in the river** – *Enpei Li - BfG, Germany*
12:40 – 12:45	Summary of the session
12:45 – 12:50	**Presentation of Hauraton**
12:50 – 13:45	**Lunch**
	Monitoring and Modelling II. — **Chair: Jos van Gils, Deltares**
13:45 – 14:15	**Assessment of diffuse heavy metal loadings by surface water and evaluation of their potential contamination** *Yassine Mimouni - University of Liège, Belgium*
14:15 – 14:45	**Assessment of the share of sediments in the eutrophication of reservoirs: Case study from the Czech Republic** *Josef Krása - Czech Technical University Prague, Czech Republic*
14:45 – 15:15	**Transboundary contamination risk assessment and modelling in the Drava River floodplain** *Jasminka Alijagić – Geological Survey of Slovenia*
15:15 – 15:20	Summary of the session
15:20 – 15:25	**Presentation of Eijkelkamp & Jakab**
15:25 – 15:50	**Pitch presentation of posters I.** — **Moderator: Martine Broer, UBA**
	A harmonized Danube basin-wide multi-compartment concentration database to support inventories of micropollutant emissions to surface waters *Steffen Kittlaus - TU Wien, Austria*
	Mercury pollution in the Lom River Basin (East Cameroon): using PEGASE model to assess small scale gold mining pressures over surface water quality *Bella Atangana, Marie Sorella - University of Liège, Belgium/Cameroon*
	Seasonality in agricultural-associated river pollution: a global multi-pollutant modelling *Mirjam Bak – Wageningen University, The Netherlands*
	Investment needs in water and wastewater infrastructure and inevitability of horizontal and vertical solidarity in fulfilling SDG 6 *Károly Kovács – BDL Ltd., Hungary*
	Investigating eutrophication levels in the stream network of the Danube Basin *Eszter Dóra Nagy – BME, Hungary*
	Event forecasting of rivers with soft computing methods *Tamás Koncsos – BME, Hungary*
	Assessment of erosion phosphorus transport risk: Case study for the Elbe Basin *Barbora Jáchymová – Czech Technical University Prague, Czech Republic*
	Detecting pollutant sources and pathways: High-frequency automated online monitoring in a small rural French/German transborder catchment *Angelika Meyer – Saarland University, Germany*
	Modelling of PFAS emissions into the Upper Danube *Meiqi Liu – TU Wien, Austria*
	Quality management in river basins starts at the micro level: Filtration systems for storm water treatment – Appropriate filter substrates *Claus Huwe – Hauraton Ltd., Germany*
	Can machine learning tools support biological quality status assessment? *Orsolya Szomolányi – BME, Hungary*
15:50 – 16:30	**Coffee break + poster discussion**
16:30 – 17:00	**Pitch presentation of posters II.** — **Moderator: S. Kittlaus, TU-Wien**
	Application of different types of catchment models to support understanding the hydrological and transport processes, emission patterns and model limitations related to these in a meso-scale catchment *Zsolt Jolánkai – BME, Hungary*

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Updating input data and expanding the range of substances by a harmonized approach for modelling emissions from Urban Systems and Municipal Wastewater Treatment Plants in MoRE – *Julia Nowak - KIT, Germany*

Heated rivers: Learning from climate change and energy scenarios along a 700 km stretch of the Rhine
Tanja Bergfeld-Wiedemann – BfG, Germany

Studying the effects of water temperature, phytoplankton and discharge variations on dissolved oxygen in the German reach of free-flowing Rhine
Manoj Sanyasee Thapa – BfG, Germany

Exploring carbon dioxide dynamics and anthropogenic influences in the Ganga River: Implications for riverine management
Pooja Upadhyay – IIT Roorkee, India

Identification of drained areas for enhanced precision in regionalized emission modeling
Michelle Wild – KIT, Germany

Estimation of hazardous substance loads in a small catchment based on composite sampling
Tímea Lajkó – BME, Hungary

Lesson learned from the application of a catchment-specific continuous surface water quality monitoring system
Zsófia Kovács – University of Pannonia, Hungary

Horizontal and vertical mass fluxes between aquifer and river during river floods
Gadadhara Ferraz de Figueiredo – BME, Hungary

Assessment of pollutant emissions to support river basin management in Albania according to the EU, AMORE-AL
Xhuljo Sema – Agricultural University of Tirana, Albania

Spatial variability of meander characteristics within a distributive fluvial system experiencing an avulsion
Neve Norris – University of Glasgow, United Kingdom

Comparative isotope hydrological characterization of the elements of the water cycle in two continental catchments: Koppány (Hungary) and Ledava (Slovenia) streams
István Gábor Hatvani – HUN-REN Research Centre for Astronomy and Earth Sciences, Hungary

A model-based case study for wetland restoration effects on the hydrological conditions at a Hungarian lowland catchment
Zsolt Kozma – Budapest University of Technology and Economics, Hungary

17:00 - 17:30	**Poster discussion**
17:30	End of 1st day

19:00 – 22:00 **Gala dinner & cruise on the Danube (cruise boarding & disembarking: Jászai Mari tér, dock nr. 3. GPS: 47.51695, 19.04836)**

Wednesday, 5th June

	Modelling	**Chair: Stephan Fuchs, KIT**
8:30 – 9:00	**Calculating emissions to water – a simplified method implemented as a spatially and temporally distributed model** *Jos van Gils – Deltares, The Netherlands*	
9:00 – 9:30	**Modelling of nutrient emission in river systems (MONERIS): Presenting new perspectives and current developments of a widely used emission model** *Anna Oprei – IGB Berlin, Germany*	
9:30 – 10:00	**Complex water quality simulations in Želivka river basin and Švihov Water reservoir (CZ)** *Pavel Tachecí – DHI a.s., Prague, Czech Republic*	
10:00 – 10:30	**Developing nitrogen boundaries for surface water bodies on national and regional scale for Germany** *Karoline Morling – Karlsruhe Institute of Technology, Germany*	
10:30 – 10:35	Summary of session	
10:35 – 11:00	**Coffee break**	

	Modelling and Management	**Chair: Oliver Gabriel, UBA Austria**
11:00 – 11:30	**The new Urban Wastewater Treatment Directive from the perspective of the receiving rivers** *Máté Kardos – BME, Hungary*	
11:30 – 12:00	**Nitrogen and phosphorous load reduction approach for catchments to reach the water quality targets set for the Water Framework Directive** *Peter Schipper – Wageningen University & Research, Netherlands*	
12:00 – 12:30	**Efficiency of the buffer zones in nutrient load reduction under climate change conditions** *Damian Bojanowski – AGH University of Krakow, Poland*	
12:30 – 12:35	Summary of session	
12:35 – 12:40	Closing of the conference - *Adrienne Clement, BME*	
12:40 – 13:40	**Farewell Lunch**	

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