



TECHNISCHE  
UNIVERSITÄT  
WIEN  
Vienna University of Technology



Vienna Doctoral Programme on  
Water Resource Systems



# Hydrology of the Carpathian Basin: synthesis of data, driving factors and processes across scales

International conference, 24. November 2022

## ORGANIZERS:

Slovak University of Technology in Bratislava, Slovakia (SUT)  
University of Sopron, Hungary (UoS)  
Vienna University of Technology, Austria (TUW)  
Vienna Doctoral Programme on Water Resource Systems  
University of Natural Resources and Life Sciences, Vienna, Austria (BOKU)

## VENUE:

Gußhausstraße 25-29, 1040 Wien, 6th floor

## CONFERENCE CHAIRS

Ján Szolgay                      Slovak University of Technology in Bratislava, Bratislava, Slovakia  
Zoltán Gribovszki              University of Sopron, Sopron, Hungary  
Günter Blöschl                  Vienna University of Technology, Vienna, Austria  
Hubert Holzmann                University of Natural Resources and Life Sciences, Vienna, Austria

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Abstract submission deadline: 10<sup>th</sup> October 2022

Conference: 24th November 2022

Conference papers: 15th December 2022

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## PROGRAMME OVERVIEW:

Gußhausstraße 25-29, 1040 Wien, 6th floor

**Detailed Programme, 24 November 2022**  
**Gußhausstraße 25-29, 1040 Wien, 6th floor**

**9:30-11:30 Oral Block**

Chairman: Silvia Kohnová and Péter Kalicz

<i>Nr.</i>	<i>Author</i>	<i>Title</i>
1	Peter Valent (TUW) (30 min)	Coupling of a high-resolution weather generator and a rainfall-runoff model in the Danube basin
2	Miriam Bertola (TUW) (15 min)	Comparative analysis of historical flood events in the Danube and Main River catchments between 1845 and 1950
3	Zsolt Kozma (UoTE) (15 min)	The effects of drainage on the hydrology of a Hungarian lowland catchment
4	Martin Kubáň (SUT) (15 min)	The value of ascad data for the calibration of a conceptual hydrological model
5	Zsolt Pinke (ELU) (15 min)	Developing a climate-smart land use system on reclaimed wetlands in the Carpathian-Balkan Region
6	Martina Majorošová (SUT) (15 min)	The influence of anthropogenic activities on the quality of the landscape and urban landscape
7	Zoltán Liptay (UoPS) (15 min)	An overview of the possibilities of artificial intelligence-based approaches in Hungarian hydrological practice

**11:30-12:15 Sandwich lunch**

## 12:15-14:15 Poster presentations (2- 3 min time slots/per poster)

Chairman: Kamila Hlavčová and Karsten Schulz

Nr.	Author	Title
P1	Csenge Nevezi (UoS)	Precipitation data processing from various tipping bucket rain gauges in the Hidegvíz Valley experimental catchment
P2	Kludia Négyesi (UoS)	Analyzing the connection between rainfall intensities and times of concentration using rainfall-runoff modeling
P3	Lorenzo Ceretti (PUT)	The runoff coefficient for a T-year design flood, using data from Austrian catchments
P4	Borbala Szeles (TUW)	Isotopic hydrograph separation at the Hydrological Open Air Laboratory
P5	Ámon Gergely (SIU)	Impact of hydrological and hydraulic modelling approaches to a flash flood event in the Hidegvíz watershed in Hungary
P6	Caroline Ehrendorfer (BOKU)	Estimation of extreme flood discharge values using synthetic weather data in the Austrian Alps
P7	David Lun (TUW)	Attribution of flood changes with a time series in the presence of autocorrelation: Modifications for Spearman's Rho and Kendall's Tau
P8	Labat Marija Mihaela (SUT)	Estimation of design floods using the CN method and the CLM climate model
P9	Gergely Kokény (VZV)	Effects of an extreme drought in Eastern Bakony, Hungary
P10	Milica Aleksic (SUT)	Using satellite data products in the process of calibration of the hydrological model
P11	Máté Chappon (UoS)	Uncertainties in the calculation of Lake Velence water budget
P12	Attila Kálmán (UoS)	Impact of nature-based solutions on the water balance of Lake Velence
P13	Veronika Bačová Mítková (SAS)	Changes in the hydrological balance in two basins with long-term observations

P14	Zuzana Sabová (SUT)	Seasonal and spatial changes in mean monthly discharges in selected gauging stations of Slovakia
P15	Bolla Bence (UoS)	The dynamics of the soil moisture content under different forest stands in the Sandridge Region of Hungary
P16	Andreás Herceg (UoS)	Impact of water supply on forest groundwater levels: a case study in the west inner-somogy micro-region (Hungary)
P17	Viera Rattayová (SUT)	Trends in reference evapotranspiration in selected stations of Slovakia
P18	Gabriel Stecher (BOKU)	Evapotranspiration generates diurnal discharge fluctuations in forested micro-watersheds
P19	Kele Szombor (UoS)	Use of the groundwater of a salt steppic oak forest in Ohat, Hungary, in relation to environmental parameters
P20	Rusznyak (UoPS)	Preliminary assessment of the groundwater regime in the Gemenc Region of the Danube-Drava National Park (Hungary)
P21	András Szabo (UoS)	Differences in the groundwater supply between a forest and agricultural land cover on the Great Hungarian Plain
P22	Katalin Zagyvai-Kiss (UoS)	Groundwater dynamics of a common alder forest
P23	Juraj Parajka (TUW)	Impact of climate change on the water resources in the Thaya basin
P24	Viktória Gáspár (SUT)	Influence of climate change on the variability of the forest community
P25	Andri Hendrizal (UR)	Water Quality and Commercial Fish Diversity in the Proposed Oxbow Lake Fish Sanctuary
P26	Lynda Paulíková (SUT)	Benthic organisms of water bodies as an indicator of water quality
P27	Aliati Iswantari (IPBU)	The Nitrogen Load in The Jatigede Reservoir, West Java, Indonesia
P28	Tomas James Oudega (TUW)	Transport and removal of Bacillus subtilis spores in an alluvial gravel aquifer at varying flow rates and the implications for setback distances

P29	Miriám Zaťkovičová (SUT)	Application of vertical gardens in urbanised areas: An alternative approach to urban greening
P30	Jana Grečnárová (SUT)	The implementation of blue-green infrastructure for the protection of natural habitats
P31	Zuzana Nemetová (SUT)	Analysis of the development of water erosion and sedimentation processes from 2000-2020, Zagozdonka catchment, Poland

**14:15-15:30**      **Poster Session with coffee**

**15:30**              **Closure**