



JAROSLAV ČERNI  
WATER INSTITUTE



INTERNATIONAL SCIENTIFIC CONFERENCE  
**CONTEMPORARY WATER MANAGEMENT: CHALLENGES AND RESEARCH DIRECTIONS**

**19-20**  
October  
**2022**

Held at  
SERBIAN ACADEMY  
OF SCIENCES AND ARTS  
Belgrade, Serbia

## CONFERENCE PROGRAMME

**Wednesday, 19.10.2022**

### REGISTRATION AND OPENING CEREMONY

08:30 – 09:30	Registration	Serbian Academy of Sciences and Arts, 3 <sup>rd</sup> floor
09:30 – 10:00	Opening ceremony Welcome speeches and introductions	Serbian Academy of Sciences and Arts, Main Auditorium

**10:00 – 10:20** Coffee break

### COMPLEX FLOOD PROTECTION AND DRAINAGE SYSTEMS

Time	Title	Author(s)	Country
10:20 - 10:40	Collaborative hydraulics - next generation tools for highway design in complex interactions with river	M. Babić-Mladenović, V. Damjanović, B. Krunic, N. Cvijanović, L. Stojadinović	Serbia
10:40 - 11:00	River network modelling to improve understanding of complex interactions between river environment and highway design	V. Bartoš Divac, N. Milivojević, M. Milovanović, N. Cvijanović, O. Prohaska	Serbia
11:00 - 11:20	Safety assessment of the existing earth levees: estimation of composition, state and stability	S. Kostić, D. Blagojević, R. Vasić, O. Obradović, B. Stanković	Serbia
11:20 - 11:40	Hydro-meteorological risk reduction and adaptation to climate change: lessons learnt from EC-funded PEARL and RECONNECT projects	Z. Vojinović	The Netherlands
11:40 - 12:00	Hydrotechnical aspects of sustainable land development in complex groundwater conditions	Ž. Rudić, V. Lukić, D. Milošev, E. Stošić, G. Nikolić	Serbia
12:00 - 12:20	Management of large drainage systems - Pančevački Rit case study	D. Milošev, Ž. Rudić, V. Lukić, M. Pušić, M. Božić	Serbia
<b>12:20 - 13:20</b>	<b>Lunch</b>		

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## DAM SAFETY

Time	Title	Author(s)	Country
13:20 - 13:40	Large arch dam safety management: Grančarevo dam case study	S. Radovanović, D. Divac, M. Pavić, M. Živković, D. Rakić	Serbia
13:40 - 14:00	Large gravity dam safety management: Iron Gate I case study	D. Divac, S. Radovanović, M. Pavić A. Šainović, V. Milivojević	Serbia
14:00 - 14:20	Remediation of the HPP "Višegrad" dam	D. Divac, D. Mikavica, Z. Dankov, M. Pavić, R. Vasić	Serbia
14:20 - 14:40	HPC based computational platform for Višegrad dam seepage investigation and remediation	V. Milivojević, N. Milivojević, B. Stojanović, S. Đurić, Z. Dankov	Serbia
<b>14:40 - 15:00</b>	<b>Coffee break</b>		
15:00 - 15:20	Sensitivity analysis of stochastic nonlinear seismic wave propagation	H. Wang, H. Yang, B. Jeremić	USA
15:20 - 15:40	Dam safety in Switzerland - two case studies	C. Čekerevac, A. Wohnlich	Switzerland

## LARGE HYDROTECHNICAL STRUCTURES – HISTORICAL HERITAGE AND CULTURAL LANDSCAPES

Time	Title	Author(s)	Country
15:40 - 16:00	Harmonization of the functional and environmental significance – Ibar hydropower plants and historical heritage of Ibar valley	M. Lojanica, D. Divac, B. Trebješanin, D. Vučković	Serbia

Thursday, 20.10.2022

## REGISTRATION

09:30 – 10:00	Registration	Serbian Academy of Sciences and Arts, 3 <sup>rd</sup> floor
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## HYDROINFORMATICS SYSTEMS IN WATER MANAGEMENT

Time	Title	Author(s)	Country
10:00 - 10:20	Optimizing the resilience of interdependent infrastructure to natural hazards – model formulation	S.P. Simonović	Canada
10:20 - 10:40	Digital water and global water challenges	D. Savić	The Netherlands
10:40 - 11:00	How simple can an urban network model be – insights from using graph partitioning to reduce model complexity	A. Mijić, E. Mak, B. Dobson	UK
<b>11:00 - 11:20</b>	<b>Coffee break</b>		
11:20 - 11:40	General platform for hydroinformatics systems – a review of concept	N. Milivojević, V. Milivojević, V. Tripković, D. Prodanović, D. Marjanović	Serbia
11:40 - 12:00	Concept of flood early warning systems in Serbia	V. Bartoš Divac, L. Stojadinović, M. Milovanović, P. Vojt, I. Marisavljević	Serbia
12:00 - 12:20	Decision support system for Iron Gate hydropower system operations	V. Ćirović, D. Bogdanović, V. Bartoš Divac, D. Stefanović, M. Milašinović	Serbia
<b>12:20 - 13:20</b>	<b>Lunch</b>		

Thursday, 20.10.2022

## WATER AND UNDERGROUND STRUCTURES

Time	Title	Author(s)	Country
13:20 - 13:40	Tunneling in karst: a case study for HPP "Dabar" tunnel	U. Mirković, S. Radovanović, D. Divac, Z. Dankov, D. Vučković	Serbia
13:40 - 14:00	Hydro scheme Alto Maipo, Chile	D. Kolić	Croatia, Austria
14:00 - 14:20	Permeability of Flysch and Molassic formations and their impact in major infrastructure projects: distribution, comparison and decrease with depth	V. Marinos, D. Papouli	Greece
14:20 - 14:40	Tunnelling design of urban sewerage system – Belgrade Interceptor	A. Cerović, N. Divac, M. Ćurčić, A. Jovičić, M. Popović	Serbia
14:40 - 15:00	<b>Coffee break</b>		

## WATER QUALITY MANAGEMENT

Time	Title	Author(s)	Country
15:00 - 15:20	Baseline and options for design of wastewater treatment plants as a part of large sewerage infrastructure: case study Veliko Selo (Belgrade Sewerage System)	D. Mitrinović, N. Pavlović, Ž. Sretenović, F. Fenoglio, B. Samanos, M. Popović	Serbia
15:20 - 15:40	Design of groundwater protection zones in urban areas - limitations and challenges	Đ. Boreli-Zdravković, V. Lukić, N. Milenković, M. Zorić, D. Đurić	Serbia
15:40 - 16:00	Water treatment technology upgrade resulting from water quality changes in reservoirs	Z. Radibratović, N. Milenković, B. Cakić, B. Obušković, D. Đurić	Serbia
<b>16:00 - 16:20</b>	<b>Closing Remarks</b>		