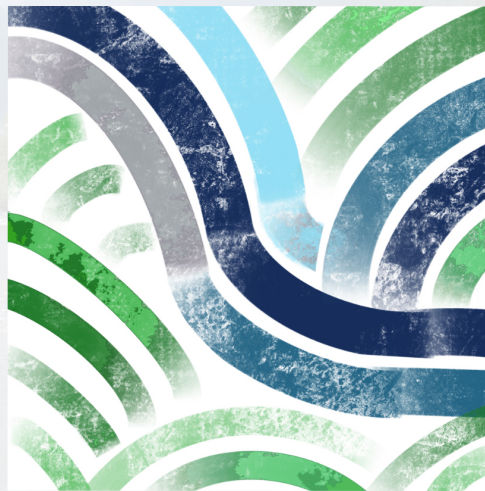


# Programme

13<sup>th</sup> WATER RESEARCH  
HORIZON CONFERENCE  
2023



**RIVER LINKS**

WATER CONNECTING  
CLIMATES, LANDSCAPES & PEOPLE

26. - 27. 09.2023 Freiburg, Germany

Rivers connect climatic regions and supply drier lowlands with freshwater. They connect landscapes, supply and store sediments and provide lifelines for people, nature and goods. Yet, the governance and management of these lifelines is challenged by global change. Climate change alters hydrological processes and sediment cascades, legacy and emerging pollutants deteriorate water quality along whole river networks and limit water use. But also, human influences like dams, reservoirs, or water abstraction disconnect rivers with negative impacts on environmental flows. All this increases use conflicts and resource competition. Unfortunately, current monitoring, analyses and modelling often neglect river connectivity highlighting the need for sustainable solutions.

The 13th Water Research Horizon Conference will bring together national and international researchers, practitioners and policy-makers with diverse backgrounds. Participants will engage in a multilateral and multidisciplinary exchange about the role of research in addressing the challenges of river links.

jointly organized by

universität freiburg

Water Science Alliance e.V.  
Deutsche Allianz Wasserforschung

<b>Tuesday, 26. September 2023</b>		
8:30	<b>Registration</b>	
9:00	<b>Opening &amp; Welcome Address (Chairs WSA, Local hosts)</b>	
9:30	<b>Keynote</b> <i>Christiane Zarfl, Tübingen University (DE)</i> Disconnected rivers - rivers under pressure from infrastructure and pollution	
10:15	<b>Coffee Break</b>	
	<b>Session: “Water connecting Biodiversity”</b> Chair: Florian Leese, University of Duisburg-Essen (DE)	<b>Session: “Water connecting Climates”</b> Chair: Kerstin Stahl, University of Freiburg (DE)
10:45	<b>Hans-Peter Grossart, IGB Berlin (DE)</b> Connectivity – an often overlooked factor of aquatic biodiversity	<b>Walter Immerzeel, Utrecht University (NL)</b> Connecting climate, water and people in high mountain Asia
11:15	<b>Kristy Deiner, ETH Zürich (CH)</b> Transport and degradation rates of eDNA in rivers predict hot spots for eDNA monitoring in landscapes	<b>Sergio Vincente-Serrano, Instituto Pirenaico de Ecología (ES)</b> Water availability challenges in Spain: complex land management processes and water demands in a climate change scenario
11:45	<b>Benjamin M. Kraemer, Freiburg University (DE)</b> Global drivers of lake dead zone formation at the mouths of major rivers	<b>Marit van Tiel, ETH Zurich (CH)</b> Linking upstream meltwater contributions to downstream low flows in the Rhine basin
12:00	<b>Marie-Thérèse Werner, University of Duisburg-Essen (DE)</b> Genetic isolation of a keystone invertebrate species in headwater streams	<b>Uwe Spank, TU Dresden (DE)</b> Challenges to correctly quantify momentum, mass and energy fluxes between extensive water surfaces and the atmosphere
12:15	Discussion	Discussion
12:30	<b>Lunch Break (Menu)</b>	
	<b>Session: “Water connecting People”</b> Chair: Jörg Seegert, TU Dresden (DE)	<b>Session: “Water connecting Health”</b> Chair: Martina Flörke, Ruhr University Bochum (DE)
13:30	<b>Ines Dombrowsky, German Institute of Development and Sustainability – IDOS, Bonn (DE)</b> Multidisciplinary perspectives on conflict and cooperation of transboundary rivers	<b>Julia Derx, Technical University Wien (AT)</b> Genetic microbial source tracking support drinking water infection risk modeling in a riverine wetland
14:00	<b>Claudia Pahl-Wostl, Osnabrück University (DE)</b> How to meet the coordination challenge in dealing with complex water governance problems	<b>Andreas Fath, Furtwangen University (DE)</b> Swimming rivers as research projects to convince policy makers
14:30	<b>Nora Schütze, Kassel University (DE)</b> Challenges and opportunities for governing the water-energy-food-ecosystem nexus	<b>Wiltrud Terlau, Bonn-Rhein-Sieg University (DE)</b> The importance of water bodies in parks promoting on health in cities, Sao Paulo
14:45		<b>Emmanuel O. Akindele, IGB Berlin (DE)</b> Gold mining impairs the biological water quality of a culturally important river and UNESCO World Heritage site in Nigeria
15:00	Discussion	Discussion
15:15	<b>Coffee Break</b>	
15:30	<b>Poster Session</b>	
16:00		<b>General Assembly Water Science Alliance e.V.</b>
17:00	<b>Award Ceremony: Bode Foundation “Water Monitoring Award 2023”</b>	
18:00 – 22:00	<b>Get-together (Mediterranean Finger-Food, Wine, Beer &amp; other Drinks)</b>	



Wednesday, 27. September 2023															
8:30	Registration														
9:00	<b>Keynote</b> <i>Susanne Schmeier, IHE Delft Institute for Water Education (NL)</i> Enhancing sustainability in the management of rivers, lakes and aquifers - the role of cooperation across sectors, actors and countries														
9:45	Coffee Break														
	<b>Session “Water connecting Landscapes”</b> Chair: Markus Weiler, Freiburg University (DE)	<b>Session: “People (dis)connecting Water”</b> Chair: Peter Krebs, TU Dresden (DE)													
10:15	<i>Simone Bizzi, University of Padova (IT)</i> Building evidence of river geomorphic processes in a data-rich era	<i>Bernhard Lehner, McGill University (CA)</i> Global effects of dams and reservoirs on free-flowing rivers: status, challenges and opportunities													
10:45	<i>Sergiy Vorogushyn, GFZ Potsdam (DE)</i> Interplay of river networks and floodplains from the flood risk perspective	<i>Johannes Weinig Bonn-Rhein-Sieg University (DE)</i> Harmless for the river - with a close cycle of urban water													
11:00		<i>Jens Lange, Freiburg University (DE)</i> Benefits of floating photovoltaic power plants on the Aswan high dam reservoir													
11:15	<i>Günter Müller-Czygan, Hof University (DE)</i> Change of perspective – How rivers are effectively incorporated into sponge concepts using multi-level analysis	<i>Max Gustav Rudolph, TU Dresden (DE)</i> The importance of uncertainty quantification in water resources management and system understanding with applications to groundwater systems													
11:30	<i>Carolyn Winter, Freiburg University (DE)</i> Large-scale evidence against nitrate source limitation during high-magnitude events and systematic divergence between long-term and event-scale export patterns	<i>Rebecca Peters, Tübingen University (DE)</i> Towards a renewable electricity mix that prevents the increasing fragmentation of African rivers													
11:45	Discussion	Discussion													
12:00	Lunch Break (Menu)														
13:00	<b>Workshops</b>														
	<b>1. Water governance workshop</b> Inter- & Transdisciplinarity in research is required for many project calls in the project designs. How can we improve successful collaborations among disciplines towards research for good water governance? Hosts: Kerstin Stahl & Nora Schütze	<b>2. Research data workshop</b> Research on river links also requires linked research datasets: How can we combine existing datasets to generate added value for data analysis and modelling in water science. Hosts: Markus Weiler, Björn Guse, Ralf Loritz – in cooperation with NFDI4Earth	<b>3. Hydrology meets Biodiversity</b> The knowns and unknowns of flow connectivity in catchments: How can interdisciplinary dialogue enhance our understanding of flow processes and biodiversity, e.g. through novel tracers? Hosts: Florian Leese, Yvonne Schadowell, Peter Chiffard (DFG Research Unit 5288)												
14:30	Outcomes of Workshops and next steps (Workshop 1-3 hosts)														
15:00	Conference Closing Remarks (Chairs WSA)														
15:15	Field trip to two research projects close to Freiburg														
	DFG Research Unit 5288: Fast and Invisible: Conquering Subsurface Stormflow through an Interdisciplinary Multi-Site Approach. StressRes: Monitoring and Modelling System for the Assessment of Stress on groundwater resources and public water supply		<table><tr><th>Lecture Halls/Rooms</th><th>Building</th></tr><tr><td>Aula</td><td>KG I</td></tr><tr><td>1199</td><td>KG I</td></tr><tr><td>1108</td><td>KG I</td></tr><tr><td>Prometheushalle</td><td>KG I</td></tr><tr><td>Mensa Rempartstrasse</td><td>Link</td></tr></table>	Lecture Halls/Rooms	Building	Aula	KG I	1199	KG I	1108	KG I	Prometheushalle	KG I	Mensa Rempartstrasse	Link
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17:45	Return from field trip														

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Prometheushalle	KG I
Mensa Rempartstrasse	<a href="#">Link</a>