

Programme

Symposium

“Uncertainty in river water monitoring”

New insights on spatio-temporal variability of suspended river water components

Organized by:

The International Centre for Water Resources and Global Change (ICWRGC)
Federal Institute of Hydrology (BfG)

Date: November 30th & December 1st 2022

URSACHEN team: Renee van Dongen (ICWRGC), Simon Terweh (BfG), Julia Arndt (BfG),
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Website: <https://www.waterandchange.org/symposium-2022/>

30.11.2022

Methods

Session Chair: Harald Koethe

- 08:30 **Login of participants**
- 09:00 **Start of the Symposium**
- 09:30 **Keynote Talk: Ton Hoitink**
- 10:00 **Jessica Laible:**
Using a hydroacoustic method to establish continuous time series of suspended sand concentration and grain size in the Isère River, France
- 10:20 **Núria Martínez Carreras:**
Estimating concentrations and fluxes of sediment-associated chemical constituents using a submerged spectrophotometer
- 10:40 **Simon Terweh and Nadine Belkouteb:**
The „URSACHEN measuring frame“ - a new approach for combined sampling of sediment characteristics and chemical composition in river cross sections
- 11:00 Break**
- 11:15 **Dhruv Sehgal:**
Estimating suspended sediment concentration using turbidity and sediment characteristics
- 11:35 **Mohamed Harhash:**
Evaluation of sampling efficiencies of five suspended particulate matter samplers – mineral particles, organic particles and microplastics
- 11:55 **Sanjaykumar M. Yadav and Urvashi Malani:**
Suspended sediment measurements in India
- 12:05 **Nadine Belkouteb:**
Multielement ICP-QQQ-MS in long term monitoring - a future tool to close knowledge gaps in regional and global element cycles?
- 12:25 Break**
- 13:15 Open Discussions in Discussion Rooms

30.11.2022

Spatial variability

Session Chair: Thomas Hoffmann

- 13:45 **Start of the Session: Spatial variability**
- 13:50 **Aron Slabon:**
Vertical and lateral variability of suspended sediment based on cross-sectional measurements at the river Rhine
- 14:10 **Katy Wiltshire:**
Investigating challenges in n-alkane fingerprinting using streambed and suspended sediments
- 14:30 **Iris Niesten:**
Residual sediment transport in a stratified estuarine channel
- 14:50 Break**
- 15:10 **Pali Gelsomini:**
Pixel selection for validation of remote sensed SPM from Sentinel 2 Satellite imagery in a heterogeneous inland narrow stream
- 15:30 **Tobias Brehm and Steffen Hackbusch:**
Possibilities and Challenges of Chlorophyll-a and Turbidity Measurements via Remote Sensing in the German Bight
- 15:50 **Felix Lorenz:**
Consideration of Uncertainty in hydrographic surveys - a geodetic perspective

- 16:00 **Hadeel Al-Zawaidah:**
A phase diagram to predict the transport modes of microplastics in rivers
- 16:10 **Sylvester Richard Chikabvumbwa:**
GIS-based spatio-temporal quantification of sediment load in an urban river in Malawi: Case of Lilongwe River
- 16:20 **Keynote Talk: Marwan Hassan**
- 16:50 Optional open Discussions in Discussion Rooms
- 17:30 **open end**

01.12.2022

Temporal variability

Session Chair: Lars Duester

- 08:00 **Login of participants**
- 08:30 **Start of the Symposium**
- 08:45 **Keynote Talk: Magdalena Bieroza**
- 09:15 **Thomas Hoffmann and Aron Slabon:**
Temporal variability of suspended sediment transport in rivers channels
- 09:35 **Khoa V. L. Thi:**
Exploring the dependance of floating plastic transport on river discharge
- 09:55 **Lorenz Gfeller:**
Temporal Variability of Mercury in Suspended Particulate Matter of German Rivers over Seasonal and Decadal Time Scales
- 10:05 **Nikolaus Weber:**
Monitoring of suspended solids and related micropollutants: Results from a 20-month long monitoring campaign at three Austrian rivers
- 10:15 Open Discussions in Discussion Rooms
- 10:45 **Break**
- 11:00 **Emma Lannergård:**
Hysteresis in the flow-turbidity relationship to better understand particle mobilization under current and future conditions
- 11:20 **Renee van Dongen:**
Global variations in SSC-Q relationships and the controlling catchment characteristics
- 11:40 **Sanjana Balachandran:**
Increased Use of Quaternary Alkylammonium Compounds during the SARS-CoV-2 Pandemic: Environmental Concentrations in Rivers and Multi-resistance Development in Pathogenic and Environmental Bacteria
- 12:00 **Sophie Lennartz:**
Quaternary Alkylammonium Disinfectants in Suspended Particulate Matter of German Rivers before and during the SARS-CoV-2 Pandemic
- 12:10 **Julia Arndt:**
High-resolution on-/atline monitoring at the River Rhine – which time interval is needed?
- 12:20 **Mahamat Nour Abdallah:**
Characterization of dissolved chemical elements in the Chari and Logone Rivers, Lake Chad Basin
- 12:30 **Magdalena Uber:**
Temporal variability in suspended sediment provenance identified with multi-tracer-multi-model sediment fingerprinting
- 12:40 **Open Discussions in Discussion Rooms**