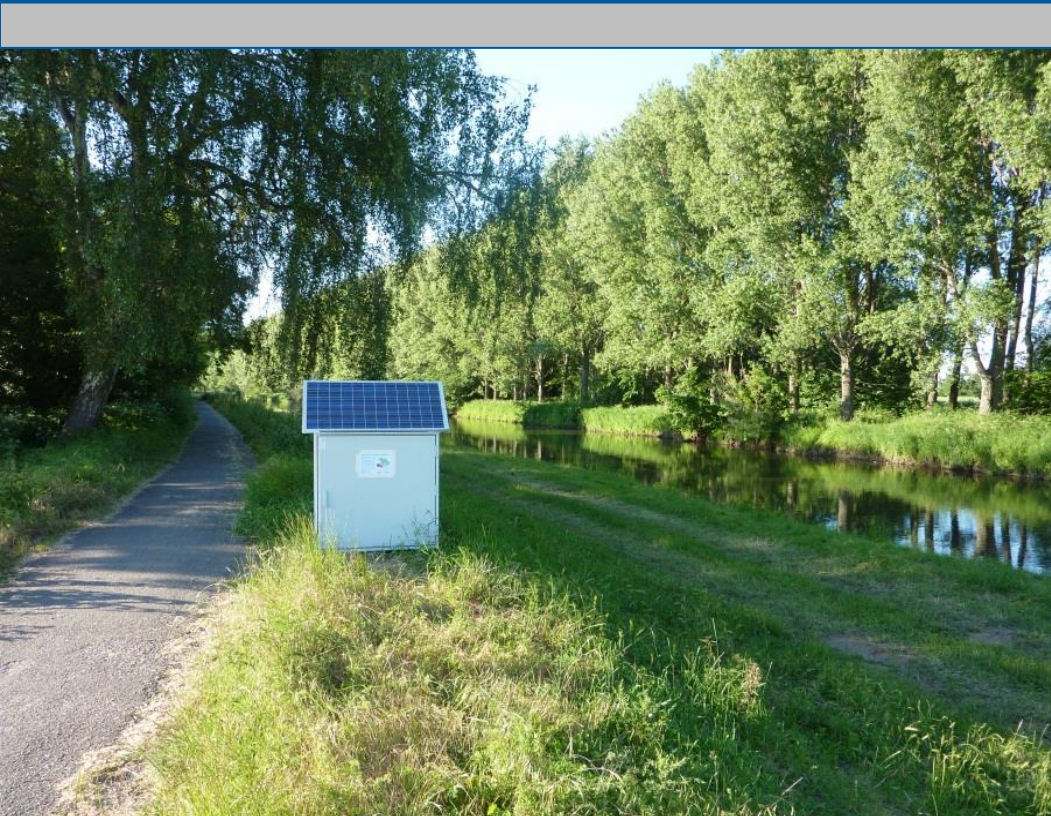


International Workshop on temporal high resolution water quality monitoring and analysis

1st Circular

21.-22. July 2014, Magdeburg, Germany



Scope

Looking forward to the near future one realizes that even more dramatic changes are likely to occur since climate, water cycle and land use are continuously undergoing significant shifts and changes. With the current acceleration of human impacts, it is becoming increasingly clear that improved accounting for changes, interactions and feedbacks is necessary to reach a better interpretation of human impacts on river water quality.

In recent years water quality monitoring has been undergone significant changes towards new sensor technologies offering high temporal resolution measurement devices and reducing the current uncertainty of observations. These new technologies will bring new insights but we are still challenged about how to integrate different types of information. Currently a number of initiatives are ongoing implementing these new technologies in Europe and abroad. These new information types, especially its high temporal resolution, offer new opportunities to improve mechanistic process understanding and better conceptualize process transferability between and across catchments.

The objective of the workshop is therefore to discuss how these new technologies and data can be used to strengthen the idea of comparative hydrology. This comprises analyzing event based, seasonal and long term hydrological and biogeochemical response of catchments caused by natural and anthropogenic impacts. Several questions will be addressed like: How to turn new types of raw data streams into useful information and ultimately new knowledge? How can data driven modelling increase the gain of information from new data types? How can we link new observations

with historical data? How can we initiate proactive research on opportunities conveyed by advanced monitoring methods? How can we improve the efficiency (information content) of monitoring schemes using new technology and how can we advance our monitoring and data analysis capabilities to predict and manage hydrological and water quality change?

To achieve these objectives we would like to bring together a critical mass of invited scientists with expertise in monitoring and mechanistic as well as data driven modelling to initiate new research collaboration in the field of biogeochemical and water quality research at the catchment scale.

Important Dates

First circular	Dec, 2013
Registration and abstract submission	opens Jan, 2014
Abstract submission deadline	1 st Apr, 2014
Acceptance of abstracts	15 th Apr, 2014
Registration deadline	1 st June, 2014

Organization

Michael Rode
Helmholtz Centre for Environmental Research-UFZ
Magdeburg, Germany

Andrew Wade
University of Reading, Reading, UK

Format

The workshop will be held in form of a two-day, single session conference. The workshop will consist of invited as well as contributed presentations and poster presentation and discussion. In order to allow for contributions from all participants, to facilitate discussion, and to enable efficient interaction between the participants, the number of participants should not exceed 40.

Scientific Programm

The workshop themes will cover the major fields of new high temporal resolution water quality monitoring technologies. The preliminary themes structuring the workshop are listed below and will be refined as planning for the workshop progresses :

- New high resolution water quality sensor technologies and applications;
- Data driven and process based model analysis of new high resolution water quality data;
- Similarities in water quality conditions, comparative river and catchment analysis.

It is planned to write a position paper that captures our thoughts and ideas on the opportunities and challenges regarding new sensors, data and analysis techniques.

Keynote Speakers

Phil Jordan

School of Environmental Sciences, University of Ulster, Coleraine, Irland

Presentation:

New developments on high resolution water quality sensor technologies and their application

Gunnar Lischeid

Institute of Landscape Hydrology
Leibniz Centre for Agricultural Landscape Research,
Müncheberg, Germany

Presentation:

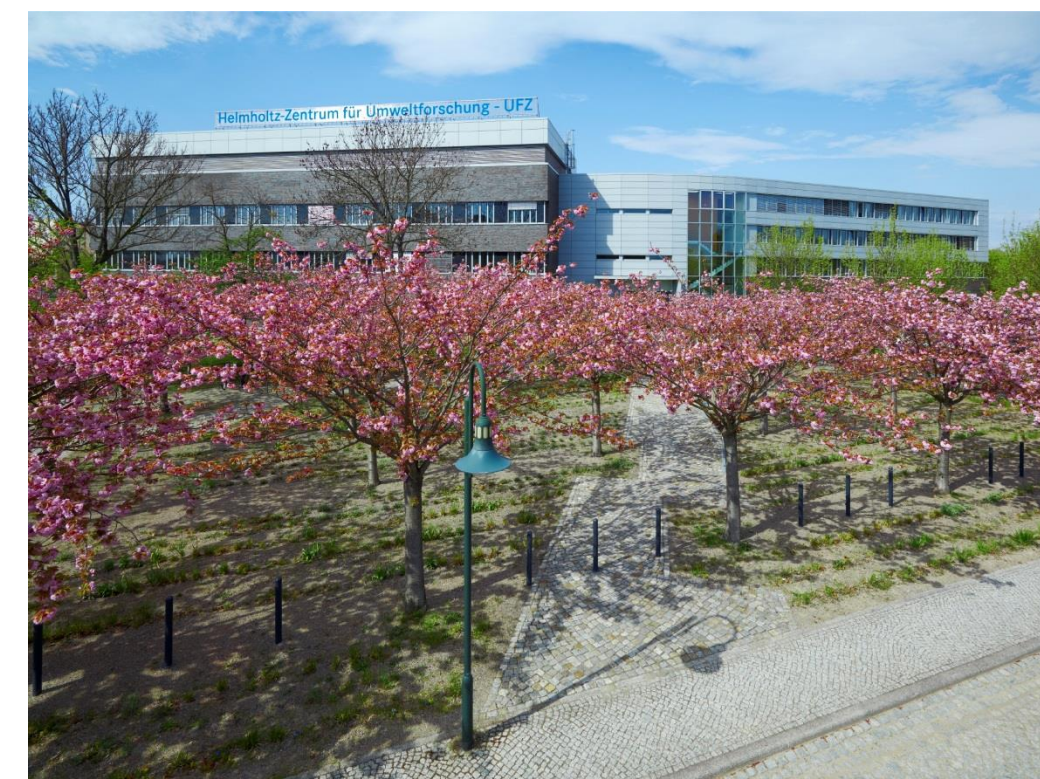
Data driven modeling using high resolution water quality monitoring data

Brian Kronvang

Department of Bioscience-Catchment Science and Environmental Management, Silkeborg, Denmark

Presentation:

Monitoring good water quality conditions: a comparative river and catchment analysis



Venue

The workshop will be held at UFZ in Magdeburg. For details please visit:

<http://www.ufz.de/index.php?en=1413>

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