International Conference On Integrated Hydrosystem Modelling



Programme

Tuesday, 3 April 2018

Welcome and Introduction

Welcome & Introducing Remarks 14:00 Olaf Cirpka, University of Tübingen

Topic I: How Important is Realistic Geology in Hydrological Modelling?

Does Geological Realism of Heterogeneous 14:30 **Aquifers Pay Off?**

Philippe Renard, University of Neuchâtel

Coffee Break

Accounting for Geological Uncertainty in 16:00 Subsurface Modelling

Thursday, 5 April 2018

Topic III: Modelling Soil-Plant Interactions

The Accuracy of Crop Model Predictions. 09:00 Understanding, Evaluating, Improving Daniel Wallach, INRA, French National Institute for Agricultural Research

Coffee Break

- **New Developments in Crop and Land Surface** 10:30 Modelling Thilo Streck, University of Hohenheim
- It is in the Soil! Revealing the Impediments to 11:30 **Root-Water Uptake in Complex Models Using** Thermodynamics

Anke Hildebrandt, University of Jena

Lunch Break

Florian Wellmann, RWTH Aachen

Can Hydrogeological Models Work without 17:00 Geology?

> Jesus Carrera, IDÆA, Spanish National Research Council

Wednesday, 4 April 2018

Topic II: Controls of Reactive Transport on Scales Relevant for Management

Wrestling with Recharge: Quantifying 09:00 **Surficial Mass Flux for Diffuse Pollution Problems**

David L. Rudolph, University of Waterloo

Coffee Break

- 10:30 Modelling Nutrient Legacies and Dynamics in **Human Dominated Catchments** Nandita Basu, University of Waterloo
- Water Cycling across Aquatic Interfaces: How 11:30 it Works and why it Matters from the Pore to the Continental Scale

Bayani Cardenas, University of Texas at Austin

Lunch Break

Poster Session on Topics I and II 13:30

Coffee Break

Poster Session on Topics III to V 13:30 Coffee Break

Topic IV: Travel-Time Based Modelling of Transport in Hydrological Systems

- Pathway-Based Water Travel-Time and Age 16:00 **Distributions from Aquifers to Catchments** Vladimir Cvetkovic, KTH Royal Institute of Technology
- Age Distributions to Model River 17:00 Hydrochemistry: Theory and Lessons Learned from 5 Years of Applications Gianluca Botter, University of Padova

Friday, 6 April 2018

Topic V: PDE-Based versus Conceptual Integrated Models

- Is Finer Better? Challenges with Model 08:30 **Complexity in Hydrology** Günter Blöschl, Vienna University of Technology
- Is Simpler Better? Making a Case for PDE-09:30 **Based Simulation of Coupled Surface and Groundwater Flow**

- Model Complexity and Simplicity from a 16:00 **Reactive-Transport Perspective: When,** where, and why does Mechanistic **Biogeochemistry Matter?** Li Li, Pennsylvania State University
- Informing Reactive Transport Models with 17:00 **Molecular-Biological Data: Opportunities and** Challenges

Nicholas Bouskill, Lawrence Berkeley National Laboratory

René Therrien, Laval University

Coffee Break

Closure

General Discussion and Closure 11:00 Olaf Cirpka, University of Tübingen

Location: Hölderlinstrasse 12, Lecture Hall (S 320) Further info: www.uni-tuebingen.de/hydromod2018

Students are welcome to attend the presentations (no registration requested)!



FACULTY OF SCIENCE **Center for Applied Geoscience** **Research Training Group 1829** Integrated Hydrosystem Modelling

