

**Including water management in large scale studies of the water cycle**

**Wednesday 28<sup>th</sup> of September**

**9:30 – 10:00 Registration and Break**

**Chair : Martina Flörke**

10:00 – 10:30 Richard Harding and Jan Polcher Introduction

10:30 – 11:00 Stefan Siebert Survey based agronomic statistics and their application for land and water usage quantification

11:00 – 11:30 Jay Famiglietti Satellite Observations Reveal the Human Fingerprint on the Global Freshwater Landscape

11:30 – 12:00 Hester Biemans Irrigation techniques, their efficiency and their impact on water usage

12:00 – 12:30 Dave Wiberg Economical and societal value of water and its management

12:30 – 13:00 Pere Quintana Segu The Ebro River: Same basin, different system.

**13:00 – 14:30 Lunch**  
**Chair : Taikan Oki**

14:30 – 15:00 Jimmy O’Keeffe Water management challenges in the Indo-Gangetic Plain

15:00 – 15:20 Sayaka YOSHIKAWA Efficacy of adaptation measures to future water scarcity on a global scale

**15:20 – 16:00 Break**

16:00 – 16:20 Min-Hui Lo Using satellite-based estimates of evapotranspiration and groundwater changes to determine anthropogenic water fluxes in land surface model

16:20 – 17:20 **Discussion lead by Martina Flörke and Taikan Oki**

**Chair : Pere Quintana**

17:20 – 17:50 Naota Hanasaki Reservoir operation schemes in global hydrological models

**Thursday 29<sup>th</sup> of September**

**Chair : Pere Quintana**

9:00 – 9:30 Martina Flörke Human processes in global hydrological models

9:30 – 10:00 Patrice Dumas Projecting water demands and allocation using generic hydroeconomic modelling

10:00 – 10:30 Richard Taylor Large-scale modelling of groundwater resources: insight from a comparison of model data and in-situ observations

**10:30 – 11:00 Break**

11:00 – 11:30 A. Nazemi How to represent human-water processes in land-surface models: Current state and ways forward

11:30 – 11:50 *Alban de Lavenn* A sequential calibration modeling strategy for an operational semi-distributed river flow model over France

11:50 – 12:10 Nicolas Flipo Impact of groundwater withdrawals on surface-subsurface exchanges at the Seine basin scale

12:10 – 12:40 Patricia Lawston Progress and Challenges in Irrigation Modeling

12:40 – 13:00 *Joshua Roundy* A simple large-scale routing scheme for seasonal streamflow predictions that includes reservoir characteristics

**13:00 – 14:30 Lunch**  
**Chair : Aaron Boone**

14:30 – 14:50 *Clement Albergel* Toward Water Management in the SURFEX modelling platform

14:50 – 15:10 *Xudong Zhou* Adding water management in the ORCHIDEE model

15:10 – 15:30 Michael Ek Introducing Human Influences in Land-surface models at NCEP

**15:30 – 16:00 Break**

16:00 – 16:20 Gianpaolo Balsamo Towards including anthropogenic surfaces in the ECMWF model: a challenge for global EO datasets

16:20 – 16:40 *Saman Razavi* Integrated Modelling of Hydrology and Water Management in a Land Surface-Hydrology Model

16:40 – 17:00 Hyungjun Kim Development of Offline Simulation Framework for Terrestrial Energy Water Cycles Incorporating Anthropogenic Processes.

17:00 – 17:20 Kenji Tanaka Representation of irrigation water withdrawal in SIBUC

17:20 – 17:40 *Marjolein van Huijgevoort* Implementation of irrigation practices in a global scale land model

17:40 – 18:30 **Discussion lead by Pere Quintana and Aaron Boone**

**Friday 30<sup>th</sup> of September**

**Chair : Richard Harding**

9:00 – 9:30 Chris Taylor Current knowledge on land-surface/atmosphere interactions and hot spots for the impact of irrigation on atmospheric processes

9:30 – 10:00 Taikan Oki Impact of anthropogenic water usage on sea-level

10:00 – 10:30 Dieter Gerten Impact of climate change on water resources and interactions with human needs

**10:30 – 11:00 Break**

11:00 – 11:30 *Mark Decker* Impacts of Irrigation On The Climate of SouthEastern Australia

11:30 – 12:00 *Wim Thiery* Irrigation mitigates against local and regional heat extreme

12:00 – 12:30 TBD Water usage and demographic development

**13:00 – 14:30 Lunch**

14:30 – 16:00 **Discussion and planing of the cross-cut actions. Lead : Richard Harding and Jan Polcher**