



## UFZ-Seminar

Research Unit



## Water Resources and Environment

12 October 2020, 3 p.m.

### Jiang Peng

Department of Remote Sensing, Helmholtz Centre for Environmental Research – UFZ,  
Leipzig, Germany

will give a talk on:

### Terrestrial Water Cycle in a Changing Climate --- a remote sensing perspective

Surface water and energy fluxes are essential components of the Earth system. The temporal and spatial variability of water and energy fluxes are determined by complex interactions between the land surface and the atmosphere. The interactions are determined by the complexity of different landscape compartments such as soil, vegetation and topography. Remote sensing provides substantial opportunities to acquire complex water cycle information continuously in time and space. Based on model-data fusion approach, we develop a coherent monitoring and modelling framework for terrestrial exchange fluxes across scales. It maximizes the usage of satellite observations that allow to quantify soil moisture dynamics and evaporation dynamics at different spatiotemporal scales. The aim of this presentation is to introduce our recent work on high-resolution water cycle variables quantification and to provide insights into the teleconnection between hydro-climatic extremes and climate oscillations.