INTERNATIONAL SPACE SCIENCE INSTITUTE

Remote Sensing and Water Resources

Workshop
6-10 October 2014

In recent years, remote sensing techniques have demonstrated their capability to monitor components of the water balance of large river basins on time scales ranging from months to decades. For example, satellite altimetry is routinely used for systematic monitoring of water levels of large rivers, lakes and floodplains. If combined with satellite imagery, it provides surface water volume variations. Passive and active microwave sensors offer important information on soil moisture (e.g., the SMOS mission) as well as wetlands and snowpack. Space gravity missions (e.g., the GRACE mission) offer for the first time, the possibility of directly measuring spatio-temporal variations of the total vertically integrated terrestrial water storage. When combined with other space observations (e.g., from satellite altimetry and SMOS) or model estimates of surface waters and soil moisture, space gravity data can measure groundwater storage variations. The purpose of this workshop is to bring together scientists interested in land hydrology, water resources and the global water cycle either from observations or hydrological models – or both –.

The Workshop is convened by:
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