

Special Issue

Remote Sensing Application on Soil Moisture

Message from the Guest Editors

Surface soil moisture is one of the key variables in the hydrological process that affects the exchange of water and energy fluxes at the surface-atmosphere interface. At present, the primary method for measuring soil moisture is satellite remote sensing. Satellite sensors can observe a large area, but the spatial resolution depends on factors such as the microwave frequency, antenna size, and ground height. The spatial resolutions of most passive radiometers are currently within 10 km. Many studies and applications require soil moisture data with higher spatial resolution.

The purpose of this Special Issue is to summarize the existing remote-sensing techniques for observing soil moisture and to propose more advanced and effective methods and products for verifying soil moisture:

- Algorithm development for the estimation of soil moisture
- The spatial downscaling and validation of soil moisture products
- Soil moisture product intercomparison and error quantification
- The applications of soil moisture
- Agriculture and drought monitoring
- Land-atmosphere interaction
- Big data in hydrology
- Evapotranspiration
- Hydrology and crop
- Irrigation
- Multi- to hyperspectral analysis

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Message from the Editor-in-Chief

In the context of global changes, the sustainable management of water cycles, going from global and regional water cycles to urban, industrial and agricultural water cycles, plays a very important role on the water resources and on their relationships with food, energy, biodiversity, ecosystem functioning and human health. *Water* invites authors to provide innovative original full articles, critical reviews and timely short communications and to propose special issues devoted to new technological and scientific domains and to interdisciplinary approaches of the water cycles. We ensure a critical review process and a quick turnaround between submission and final decision.

Editor-in-Chief

Dr. Jean-Luc PROBST

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