



Satellite Soil Moisture Validation and Applications

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Message from the Guest Editors

Soil moisture is a key element of our Earth's system and an important indicator of climate change. Soil is the medium for plant growth and the substrate for all biogeochemical and biogeophysical processes. Its unique natural organization forms the foundation of any food–water–energy nexus system. In addition, soil is a very large reservoir for water and carbon with strong influences on local, regional, and global climate. The topics of the Special Issue include:

- 1) Soil Moisture Data Product Validation;
- 2) Space and in situ soil moisture measurements;
- 3) Soil Moisture Applications in Natural Hazards Monitoring;
- 4) Weather and Climate Modeling;
- 5) The Role of Soil Moisture in Carbon Cycle and Ecology;
- 6) Hydrology and Water Resources;
- 7) Agriculture and Food Security.
- 8) Soil-Ecosystem-Carbon-Climate (SECC) Nexus
- 9) Water-Energy-Food Nexus
- 10) WMO Soil Moisture Demonstration Project (SMDP)
- 11) International Soil Moisture Standard and Guidelines

