In this Special Issue, we welcome studies on remote sensing of soil moisture across different spatial and temporal scales. We also welcome studies addressing new missions. The studies can deal with the retrieval of soil moisture, the validation of remote sensing measurements and their use for scientific research or operational applications.

Potential topics include but are not limited to the following:

- Retrieval algorithms, in particular using multi-wavelength, active and passive data, both based on physical models and data-driven methods
- Downscaling satellite soil moisture merging data from sensors with different spatial resolutions
- Approaches for the harmonised processing of data coming from different sensors to construct longer, coherent, soil moisture records
- Validation of satellite soil moisture products, in particular using new techniques for up-scaling and new measurements.
- Applications of remotely sensed soil moisture data including data assimilation and disaster assessment

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Guest Editors