Special Issue

Satellite Soil Moisture Estimation, Assessment, and Applications (Second Edition)

Message from the Guest Editors

Soil moisture influences the partitioning of precipitation into evapotranspiration, surface runoff, and infiltration, thereby affecting hydrological and climatic processes. Accurate global monitoring of soil moisture from space is important for improving land and weather forecasts; understanding water, energy, and carbon cycles; and enhancing management of water and food resources. Today, multiple space-borne platforms, such as the ESA's Soil Moisture and Ocean Salinity (SMOS) satellite and NASA's Soil Moisture Active Passive (SMAP) satellite, provide unprecedented opportunities to analyze soil moisture. Looking ahead, ESA's Copernicus Imaging Microwave Radiometer (CIMR), expected to launch in 2029, will operate across multiple microwave frequencies, further advancing soil moisture monitoring. However, the measurement of soil moisture remains challenging due to limited satellite observations; the high correlation between different polarizations, angles, and channels; and uncertainties in radiative transfer models and ancillary datasets.

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Deadline for manuscript submissions

28 February 2026

Remote Sensing

an Open Access Journal by MDPI

Impact Factor 4.1
CiteScore 8.6

mdpi.com/si/249968

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Message from the Editor-in-Chief

Remote Sensing is now a prominent international journal of repute in the world of remote sensing and spatial sciences, as a pioneer and pathfinder in open access format. It has highly accomplished global remote sensing scientists on the editorial board and a dedicated team of associate editors. The journal emphasizes quality and novelty and has a rigorous peer-review process. It is now one of the top remote sensing journals with a significant Impact Factor, and a goal to become the best journal in remote sensing in the coming years. I strongly recommend *Remote Sensing* for your best research publications for a fast dissemination of your research.

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