Special Issue

Radiative Transfer Models for Remote Sensing Land Surface Parameter Estimation

Message from the Guest Editors

Radiative transfer models (RTMs) play a key role in remote sensing by enabling accurate estimation of surface parameters such as reflectance, leaf area index (LAI), and solar radiation. They simulate the interaction of electromagnetic radiation with the atmosphere, vegetation, soil, and terrain, helping retrieve surface characteristics from satellite, airborne, or drone-based sensors. In complex environments like mountainous areas, RTMs are vital for correcting topographic and atmospheric effects. Recent advances in high-resolution sensors (e.g., Sentinel-2, Landsat 8, hyperspectral platforms) and computational tools—including machine learning—have expanded RTM capabilities at finer spatial and temporal scales. This Special Issue focuses on the development, application, and validation of RTMs for surface parameter estimation. We welcome contributions integrating RTMs with machine learning, high-resolution imagery, and multi-sensor fusion to improve accuracy in environmental monitoring and resource management, aligning with the journal's scope on sensor innovation and environmental applications.

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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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