

Special Issue

Advancements in Remote Sensing Techniques for Wetland Hydrology and Ecosystem Monitoring

Message from the Guest Editor

In recent years, rapid advancements in remote sensing technologies have substantially improved our ability to observe wetland hydrology and ecosystem processes across previously unattainable spatial and temporal scales. High-resolution optical imagery, SAR data, LiDAR, hyperspectral sensors, and emerging multi-source data fusion techniques now enable the more accurate monitoring of inundation patterns, vegetation dynamics, hydroperiod variability, surface-groundwater interactions, and ecosystem health indicators. This Special Issue aims to bring together innovative research that advances methodological, technical, and applied aspects of remote sensing in wetland hydrology and ecosystem monitoring. We welcome contributions that explore machine and deep learning approaches, time-series analysis, multi-sensor integration, data assimilation strategies, and uncertainty assessment frameworks. Studies focusing on climate change impacts, restoration monitoring, carbon dynamics, biodiversity assessment, and decision-support applications in sustainable wetland management are particularly encouraged.

Guest Editor

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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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