Special Issue

Spatiotemporal Variability in Hydrologic Systems from GRACE, Remote Sensing, and Climate Data

Message from the Guest Editor

- Remote sensing has revolutionized our ability to monitor hydrological processes and climate-driven changes in water resources. The GRACE and GRACE-FO satellite missions have provided critical insights into terrestrial water storage (TWS) dynamics, enabling researchers to quantify groundwater depletion, surface water fluctuations, and soil moisture variability at regional and global scales. As climate change alters wind regimes, precipitation patterns, and groundwater recharge, it is essential to integrate GRACE data with other remote sensing observations and hydrological models to assess these impacts comprehensively.

- This Special Issue aims to explore the latest advancements in hydrological remote sensing by combining GRACE/GRACE-FO observations with multi-sensor satellite datasets, hydrological modeling, and climate data. The focus will be on understanding the drivers of spatiotemporal water storage variability, assessing climate-induced changes in precipitation and recharge patterns, and refining data assimilation and downscaling methods for improved hydrological forecasting.

Guest Editor

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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.

Editor-in-Chief

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