

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

Dr. Kareem Abdelmohsen

School of Sustainability, Arizona State University, Tempe, AZ, USA

Deadline for manuscript submissions

28 March 2026



Remote Sensing

an Open Access Journal
by MDPI

Impact Factor 4.1
CiteScore 8.6



mdpi.com/si/234187

Remote Sensing
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
remotesensing@mdpi.com

[mdpi.com/journal/
remotesensing](https://mdpi.com/journal/remotesensing)





Remote Sensing

an Open Access Journal
by MDPI

Impact Factor 4.1
CiteScore 8.6



[mdpi.com/journal/
remotesensing](https://mdpi.com/journal/remotesensing)



About the Journal

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

Dr. Prasad S. Thenkabail

Senior Scientist (ST), U. S. Geological Survey (USGS), USGS Western Geographic Science Center (WGSC), 2255, N. Gemini Dr., Flagstaff, AZ 86001, USA

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, PubAg, GeoRef, Astrophysics Data System, Inspec, dblp, and other databases.

Journal Rank:

JCR - Q1 (Geosciences, Multidisciplinary) / CiteScore - Q1 (General Earth and Planetary Sciences)