

## Special Issue

# Advanced Remote Sensing for Hydro-Climatic Extremes: Modeling, Characterization, and Risk Analysis

### Message from the Guest Editors

We welcome original research articles, reviews, and technical notes on, but not limited to, the following topics:

- Novel Remote Sensing Data Integration and Fusion:
  - Methods for assimilating multi-sensor (e.g., SAR, Optical, LiDAR, GRACE) and multi-platform (satellite, airborne, UAV) data to characterize hydrological state variables (e.g., soil moisture, flood extent, water levels, snow/ice).
  - Downscaling techniques to improve the spatial and temporal resolution of satellite-derived hydrological parameters for local-scale applications.
- Remote Sensing in Hydrological Modeling and Prediction:
  - Utilizing EO products for calibration, validation, and forcing of physical-based, conceptual, or data-driven hydrological and hydraulic models.
  - Advancements in data assimilation techniques to integrate remotely sensed observations into real-time operational flood and drought forecasting systems.
  - Application of remote sensing for model development in ungauged or data-sparse basins.
- Hydro-Climatic Characterization and Extreme Event Analysis:
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- Machine Learning and GeoAI for Water Risk:
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### Guest Editors

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## Remote Sensing

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CiteScore 8.6

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## About the Journal

### Message from the Editorial Board

*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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### Editors-in-Chief

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