Special Issue

Advanced Applications of Radar Remote Sensing and Artificial Intelligence in Meteorology and Hydrology

Message from the Guest Editors

- This Special Issue focuses on the integration of **advanced radar remote sensing** technologies and **artificial intelligence (AI)** methodologies for improved analysis and forecasting in meteorology and hydrology.
- Key topics include **dual-polarization radar**, **wind profilers**, **disdrometers**, and their applications in real-time storm tracking, typhoon structure analysis, and precipitation classification. Furthermore, **AI-based techniques** such as deep learning, random forests, and support vector machines are rapidly transforming how we interpret complex radar signals and derive meaningful hydrometeorological insights.
- The scope of this issue is **global**, encouraging submissions from all climate regions—tropical, temperate, arid, and polar—and from both developed and developing nations.
- This issue also welcomes **comparative studies across regions**, including urban vs. rural rainfall detection, AI-enhanced radar analysis in mountainous vs. flat terrain, and cross-validation of AI models using radar data from different continents.

Guest Editors

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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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