Special Issue

Remote Sensing Intelligent Interpretation in the Era of Large Models and Intelligent Agents: New Challenges, Methods and Opportunities

Message from the Guest Editors

The rapid advancement of large language models (LLMs) and intelligent agents has ushered in a transformative era for remote sensing applications. These cutting-edge technologies are revolutionizing how we process, analyze, and interpret vast amounts of Earth observation data. They enable unprecedented capabilities in automated feature extraction, pattern recognition, and decision-making processes. The integration of foundation models with remote sensing workflows presents remarkable opportunities alongside significant challenges that demand innovative methodological approaches and interdisciplinary collaboration. This Special Issue aims to explore the intersection of large models and intelligent agents with remote sensing intelligent interpretation. We focus on how these technologies can enhance our understanding of Earth systems while overcoming existing limitations in data processing, model generalization, and real-world deployment. The scope aligns with the *Remote Sensing* journal's mission to advance cutting-edge research in Earth observation technologies and their applications across environmental, agricultural, urban, and climate studies.

Guest Editors

Prof. Dr. Lei Wang

Dr. Xiyu Qi

Dr. Yongqiang Mao

Dr. Xiaoxuan Liu

Dr. Zicong Zhu

Dr. Zhuohong Li

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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

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

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