

Special Issue

Land Cover Classification of Multi-Source Remote Sensing Data Based on Deep Learning

Message from the Guest Editors

Earth observation has evolved from single-modality sensing to a multi-dimensional paradigm that integrates spatial, temporal, and spectral information, as well as semantic, across heterogeneous data sources. Driven by advances in AI and Earth observation capabilities, recent studies have moved beyond conventional multimodal fusion by aligning and unifying diverse sensor data (e.g., optical, SAR, LiDAR, hyperspectral data), substantially enhancing cross-modal understanding and downstream application performance. This Special Issue focuses on how to leverage deep learning methods, including large language models (LLMs) and language–visual models (LVMs) to enable effective fusion of multi-source Earth observation data oriented to real-world application scenarios. It aims to address the challenges of Earth perception and cognition in the context of multi-dimensional observation, and to better serve the observational needs of key domains such as agriculture, forestry, water resources, and soil science.

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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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