



## CALL FOR PAPERS

### IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing Special Issue on “Advances in Multimodal Transfer Learning for Remote Sensing: Theories, Methods, and Applications”

Remote sensing is witnessing an unprecedented data revolution, marked by the explosive growth of heterogeneous Earth Observation (EO) data from diverse sensors—optical, SAR, LiDAR, hyperspectral, and thermal—across multiple resolutions. While this multimodal influx offers great potential for understanding complex geospatial phenomena, it also introduces critical challenges: limited labeled data, significant domain shifts across sources or regions, and difficulties in fusing disparate modalities. Multimodal Transfer Learning (MTL) has emerged as a key solution, transferring knowledge from data-rich domains to data-scarce ones to unlock the synergistic value of multimodal EO data. This IEEE J-STARS Special Issue, "Advances in Multimodal Transfer Learning for Remote Sensing: Theories, Methods, and Applications", invites cutting-edge research on theoretical advances—such as cross-modal knowledge representation and domain adaptation—and novel methods, including deep learning architectures (e.g., cross-modal transformers, self-supervised learning), efficient fusion strategies, and techniques for handling missing data. Crucially, the Special Issue will highlight high-impact applications demonstrating the transformative power of MTL across core J-STARS domains, including but not limited to: large-scale land cover/land use mapping under label constraints; precision agriculture and crop monitoring; disaster response and damage assessment (e.g., floods, fires, earthquakes); climate change impact analysis; urban growth modeling; biodiversity conservation; and ocean/ice dynamic monitoring. By bridging computer vision, machine learning, and remote sensing, this issue aims to establish a state-of-the-art reference, promote benchmark development, and advance robust, efficient intelligent systems for global Earth monitoring and sustainable resource management.

The broad topics include (but are not limited to):

- Multimodal low-level vision tasks (e.g., denoising, restoration, super-resolution, fusion);
- Multimodal high-level tasks (e.g., classification, segmentation, object detection);
- Multimodal foundation model;
- The application of multimodal remote sensing in specific fields (e.g., precision agriculture, water resource management, disaster warning).

#### Schedule

Mar. 01, 2026 Submission system opening

Aug. 31, 2026 Submission system closing

#### Format

All submissions will be peer reviewed according to the IEEE Geoscience and Remote Sensing Society guidelines. Submitted articles should not have been published or be under review elsewhere. Submit your manuscript on <http://mc.manuscriptcentral.com/jstars>, using the Manuscript Central interface and select the “**Advances in Multimodal Transfer Learning for Remote Sensing: Theories, Methods, and Applications**” special issue manuscript type. Prospective authors should consult the site <https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=9082768> for guidelines and information on paper submission. All submissions must be formatted using the IEEE standard format (double column, single spaced). Please visit [http://www.ieee.org/publications\\_standards/publications/authors/author\\_templates.html](http://www.ieee.org/publications_standards/publications/authors/author_templates.html) to download a template for transactions. Please note that since Jan. 1, 2025, IEEE J-STARS, as a fully open-access journal, is charging a flat publication fee \$1,800 per paper.

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