



Special issue on “AI for Hyperspectral Remote Sensing”

Guest Editors

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Hyperspectral imaging was listed as one of the “100 Radical Innovation Breakthroughs for the future” by the European Union in 2019. The integrated imaging capability of space and spectrum makes hyperspectral remote sensing a cutting edge of research in the global Earth observation. This special issue aims to use artificial intelligence to mine and utilize hyperspectral information, promoting the development of hyperspectral imaging in Earth observation and other interdisciplinary fields.

The topics of interest include (but are not limited to):

- Computational hyperspectral sensing, combining algorithms and hardware to build a “light field-information-computation” system, breaking through the performance limits of traditional hyperspectral imaging.
- AI for hyperspectral remote sensing tasks, such as denoising, super-resolution, unmixing, classification, detection, fusion, etc.
- Hyperspectral AI large/foundation models, including the construction of hyperspectral datasets, AI model design, training, and optimization.
- AI for hyperspectral remote sensing applications, such as agricultural monitoring, urban sensing, climate change, etc.
- Cross-disciplinary innovative applications of hyperspectral technology in different fields.

Format and Schedule

Articles submitted to this special issue of the IEEE Geoscience and Remote Sensing Magazine must contain significant relevance to geoscience and remote sensing and should have noteworthy tutorial/review value. Selection of invited papers will be done on the basis of 4-page White papers, submitted in double-column format. These papers must discuss the foreseen objectives of the paper, the importance of the addressed topic, the impact of the contribution, and the authors’ expertise and past activities on the topic. Contributors selected on the basis of the White papers will be invited to submit full manuscripts. Manuscripts should be submitted online at <http://mc.manuscriptcentral.com/grsm> using the Manuscript Central interface. Prospective authors should consult the site <http://ieeexplore.ieee.org/servlet/opac?punumber=6245518> for guidelines and information on paper submission. Submitted articles should not have been published or be under review elsewhere. All submissions will be peer reviewed according to the IEEE and Geoscience and Remote Sensing Society guidelines.

Special Issue tentative schedule:

April 1, 2026	White paper submission deadline
April 15, 2026	Full paper invitation notification
June 15, 2026	Full paper submission deadline
July 15, 2026	Review notification
September 1, 2026	Revised manuscript due
September 15, 2026	Final acceptance notification
September 25, 2026	Final manuscript due
December, 2026	Publication date