Special Issue

Advances in Data Processing and Geoscience Applications of the Geology-1 Hyperspectral Satellite

Message from the Guest Editors

The successful launch of Geology-1 on May 17, 2025, marks a new milestone in China's hyperspectral Earth-observation program. The initial public release of Geology-1 imagery (http://geosat.com.cn/) provides unprecedented access to national hyperspectral data, supporting innovative research in geological mapping, mineral exploration, environmental assessment, and geohazard monitoring. With its broad spectral range, moderate spatial resolution, and agile microsatellite architecture, Geology-1 offers new opportunities for data processing, spectral analysis, and multi-source fusion. This Special Issue aims to present recent progress in hyperspectral data processing, analysis, and geoscience applications enabled by the Geology-1 satellite. Articles may address, but are not limited to, the following topics:

- Hyperspectral data preprocessing, calibration, and atmospheric correction for Geology-1;
- Spectral feature extraction, unmixing, and dimensionality reduction methods;
- Multi-source data fusion of hyperspectral, SAR, optical, and DEM datasets;
- Mineral and lithological mapping using Geology-1 imagery;
- Hyperspectral applications in geological hazard and environmental monitoring;
- .....

Guest Editors

Dr. Yuewei Wang
Dr. Wei Han
Prof. Dr. Yi Wang

Deadline for manuscript submissions

30 July 2026

Remote Sensing

an Open Access Journal by MDPI

Impact Factor 4.1
CiteScore 8.6

mdpi.com/si/265476

Remote Sensing
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
remotesensing@mdpi.com

mdpi.com/journal/remotesensing

MDPI

Remote Sensing

an Open Access Journal by MDPI

Impact Factor 4.1
CiteScore 8.6

mdpi.com/journal/remotesensing

MDPI

About the Journal

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.

Editors-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

Prof. Dr. Dongdong Wang
Institute of Remote Sensing and Geographic Information Systems, Peking University, Beijing, China

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, PubAg, GeoRef, Astrophysics Data System, Inspec, dblp, and other databases.

Journal Rank:

JCR - Q1 (Geosciences, Multidisciplinary) / CiteScore - Q1 (General Earth and Planetary Sciences)