Special Issue

Ionosphere and Space Weather Based on Satellite Remote Sensing Observation

Message from the Guest Editor

This Special Issue aims to highlight cutting-edge developments in remote sensing technologies and methodologies for ionospheric and space weather research. We invite original research articles, technical notes, and comprehensive reviews in the following areas:

- Innovative satellite-based techniques for ionospheric monitoring and their integration with ground-based systems.
- Detection and characterization of ionospheric disturbances (e.g., TIDs, scintillation, storm-time effects) via remote sensing.
- Data assimilation and space weather forecasting models, including AI/ML-based approaches, using multi-source observations.
- Impact assessment of ionospheric disturbances on GNSS, satellite communications, and radar operations.
- New satellite missions, sensor technologies, or data fusion frameworks for improved space weather resilience.
- Cross-disciplinary approaches combining remote sensing, geophysics, and atmospheric modeling to address space environment challenges.

Guest Editor

Prof. Dr. Xudong Gu
School of Earth and Space Science and Technology, Wuhan University, Wuhan 430079, China

Deadline for manuscript submissions

30 November 2025

Remote Sensing

an Open Access Journal by MDPI

Impact Factor 4.1
CiteScore 8.6

mdpi.com/si/241313

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

About the Journal

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

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)