Special Issue

Exploring Innovative Ionospheric Applications Using Ground and Spaceborne Observations

Message from the Guest Editors

The aim of this Special Issue is to showcase the latest advancements in applications for studying the ionosphere using ground and spaceborne observations. By bringing together researchers from diverse backgrounds, the Special Issue seeks to foster interdisciplinary collaboration and facilitate the exchange of ideas and methodologies in this rapidly evolving field. Its contributions will highlight the potential of new techniques to enhance ionospheric modeling, forecasting, and understanding extreme phenomena, including those such as ionospheric irregularities, EIA, MSNA, MSTID, and their influence on communication, such as scintillation. Suggested themes for submissions include, but are not limited to, ML-based ionospheric modeling, data assimilation techniques, the prediction and analysis of ionospheric disturbances, anomaly detection, and applications of GNSS data in space weather monitoring. It is highly encouraged to develop new techniques and utilize multiple types of observations to improve the specification of the ionosphere environment and to advance understandings of extreme space weather phenomena in the current solar maximum.

Guest Editors

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Dr. Dongsheng Zhao

Dr. Weijia Zhan

Prof. Dr. Kefei Zhang

Deadline for manuscript submissions

28 May 2025

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

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