

Special Issue

Tianmu-1 Constellation: Advancements in Atmospheric, Ionospheric and Surface Remote Sensing Using GNSS- RO and GNSS-R

Message from the Guest Editors

The Tianmu-1 constellation represents a significant advancement in commercial satellite systems dedicated to Earth observations. Rapidly deployed through multiple launches starting in late 2021 and now numbering 23 satellites, Tianmu-1 carries the GNOS-M payload with multi-GNSS-compatible (BDS, GPS, Galileo, GLONASS) Radio Occultation (RO) and GNSS-Reflectometry (GNSS-R). The GNSS-RO component provides crucial global, all-weather, high-vertical-resolution atmospheric profiles for improving numerical weather prediction (NWP) and climate monitoring. Simultaneously, the GNSS-R component offers valuable data for sensing surface characteristics such as soil moisture and sea states. This Special Issue aims to gather and showcase cutting-edge research focused on the Tianmu-1 constellation. We encourage submissions covering its full spectrum of activities, from fundamental aspects encompassing precise orbit determination (POD) and instrument data processing chain development (for both RO and GNSS-R) to advanced geophysical parameter retrieval, data assimilation techniques, and diverse scientific applications.

Guest Editors

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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.

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