Special Issue

Advances in GNSS-Reflectometry and Remote Sensing for Ocean Surface Monitoring

Message from the Guest Editors

Over the past two decades, Global Navigation Satellite System Reflectometry (GNSS-R) has emerged as a powerful and innovative technique for ocean remote sensing, offering unique advantages over conventional monostatic radar systems. Traditionally, oceanographic parameters like sea surface height (SSH), significant wave height (SWH), and sea surface wind speed have been measured using dedicated satellite altimeters (e.g., Jason series, Sentinel-6) or scatterometers (e.g., ASCAT), which require complex, expensive payloads and significant power resources. GNSS-R fundamentally challenges this paradigm by leveraging the abundant, coherent, L-band signals continuously transmitted by global navigation satellite constellations (GPS, Galileo, GLONASS, BeiDou) as signals of opportunity. This Special Issue aims to advance the theoretical understanding and practical application of Global Navigation Satellite System Reflectometry (GNSS-R) for ocean remote sensing. Its primary objectives are threefold: advancing ocean surface scattering modeling, improving retrieval of key ocean parameters, and exploring novel applications and parameters.

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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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