

Special Issue

Ship Imaging, Detection and Recognition for High-Resolution SAR

Message from the Guest Editors

In recent years, the continuous improvement in the spatial resolution of synthetic aperture radar (SAR) systems has necessitated longer synthetic aperture time, creating significant challenges for ship imaging. The long aperture time introduces two major complications. Firstly, micro-motion causes continuous variations in a ship's attitude relative to the SAR platform, including its backscattering characteristics and echo coherence. Secondly, micro-motion induces multi-cycle oscillations in the range history, generating sinusoidal-coupled phase components in the echoes and micro-Doppler effects. The combined influence of time-varying backscattering and micro-Doppler phenomena leads to complicated amplitude-phase modulation in the echoes, resulting in severe defocusing in the reconstructed imagery. This Special Issue aims to explore advanced methods related to imaging, detection and recognition for ships with complicated motion in high-resolution spaceborne SAR.

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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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