Special Issue

Vegetation Optical Depth: Remote Sensing Retrievals and Applications

Message from the Guest Editors

Vegetation optical depth (VOD) accounts for the attenuation of microwaves through vegetation and is a function of vegetation water content and its structure. Unlike optically-based technologies, microwave-frequency sensors can observe through clouds. Furthermore, one of the strengths of low frequency VOD is its sensitivity to vegetation changes in dense forests, where optical indices tend to saturate. The relationships between VOD and AGB (Above Ground Biomass) and AGC (above ground carbon) were recently discovered allowing to assess interannual variations in carbon stocks, a main actor in climate change. VOD estimated at different frequencies (from ASCAT, Sentinel-1, SMOS, SMAP, AMSR-E, and AMSR2 sensors) provide complementary information on these vegetation properties and it has been shown that VOD can be used as a proxy of other vegetation properties, such as tree height, sap flow, leaf fall and above ground biomass.

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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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