Special Issue

Linking Photosynthesis, Gross Primary Productivity and Sun-Induced Fluorescence

Message from the Guest Editors

Photosynthesis is a basic phenomenon on which the Earth is dependent. It is also very sensitive to stress factors (abiotic and biotic), which often disturb the photosynthetic phenomena, often resulting in less productivity and thus food shortages. The monitoring of photosynthetic activity on a global scale is not an easy task. In recent decades, a fluorescence-based technique was developed through which researchers are trying to estimate the photosynthetic processes. Remote sensing techniques are able to detect sun-induced fluorescence (SIF), providing a possibility to monitor photosynthesis from space. However, the relationship between SIF and photosynthesis is not direct. Instead, it is regulated by other phenomena such as non-photochemical quenching. Several recent works have linked SIF with the gross primary productivity (GPP) of the plant. However, a lot of work is still needed to understand the relationship between SIF, GPP, and photosynthesis under changing environmental conditions. We invite all types of articles (reviews, original research, opinions) related to SIF, which can help to better understand the SIF signals and their relationship with GPP and photosynthesis.

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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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