Special Issue

Estimating Vegetation Biomass and Carbon Stock Using Remote Sensing

Message from the Guest Editor

Earth's vegetation plays a major role in the global carbon cycle. Vegetation biomass stores carbon in long-lived woody pools, but also in the form of humus in the soil. Tropical forests have very abundant vegetation; however, they are often exposed to deforestation and, generally, their soils cannot store a large amount of carbon. Temperate and boreal forests, with less biomass and biodiversity, store a larger quantity of carbon in the soil. Meadows, savannas, and even sparse canopies of semi-desert regions significantly contribute to the global stock of carbon, although their content in vegetation is rather low. A multitude of retrieval models have been developed, based on either empirical regression techniques, physical-based mathematical models, or machine learning algorithms. The availability of a wide range of observations from space, including LiDAR and P-band SAR, are expected to provide more detailed information regarding vegetation biomass and the vertical structure of tall canopies. Combining multi-source remote sensing measurements and models could give improved answers to the demand for spatially explicit estimates of vegetation biomass and carbon stock.

Guest Editor

Dr. Bernard Lacaze
PRODIG, UMR 8586 CNRS, Bâtiment Olympe de Gouges, Place Paul Ricoeur, 75013 Paris, France

Deadline for manuscript submissions

closed (6 December 2022)

Remote Sensing

an Open Access Journal by MDPI

Impact Factor 4.1
CiteScore 8.6

mdpi.com/si/122398

Remote Sensing
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
remotesensing@mdpi.com

mdpi.com/journal/remotesensing

Remote Sensing

an Open Access Journal by MDPI

Impact Factor 4.1
CiteScore 8.6

mdpi.com/journal/remotesensing

About the Journal

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.

Editor-in-Chief

Dr. Prasad S. Thenkabail
Senior Scientist (ST), U. S. Geological Survey (USGS), USGS Western Geographic Science Center (WGSC), 2255, N. Gemini Dr., Flagstaff, AZ 86001, USA

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, PubAg, GeoRef, Astrophysics Data System, Inspec, dblp, and other databases.

Journal Rank:

JCR - Q1 (Geosciences, Multidisciplinary) / CiteScore - Q1 (General Earth and Planetary Sciences)