Special Issue

Quantifying Greenhouse Gases Emissions from Remote Sensing Perspective

Message from the Guest Editor

Greenhouse gas (GHG) emissions remain a primary driver of anthropogenic climate change, yet accurately quantifying their fluxes and distributions across diverse regions is a persistent challenge. Recent advances in remote sensing, encompassing satellite missions, airborne campaigns and ground-based instruments now provide unprecedented spatial and temporal resolution for monitoring key gases such as carbon dioxide, methane and nitrous oxide. This Special Issue aims to collect original research articles, methodological developments and comprehensive reviews focusing on the acquisition, processing and interpretation of remote sensing data for quantifying GHG emissions. We welcome submissions that address innovative sensor technologies, retrieval algorithms and assimilation frameworks, and modeling and inversion techniques that transform these observations into robust emissions estimates.

Guest Editor

Dr. Christoffer Karoff
Department of Geoscience, Aarhus University, 8000 Aarhus, Denmark

Deadline for manuscript submissions

14 April 2026

Remote Sensing

an Open Access Journal by MDPI

Impact Factor 4.1
CiteScore 8.6

mdpi.com/si/236120

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

MDPI

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)