Special Issue

Progress in Estimating, Monitoring, and Modelling Wildfire Fuel Loads Using Remote Sensing

Message from the Guest Editors

Fuel loads are key drivers of fire intensity, spread, and behaviour; therefore, management activities benefit from accurate and timely fuel load estimations for hazard reduction burns, asset management, and for resource allocation during wildfires. This Special Issue aims at compiling the latest advances in the estimation, monitoring, and modelling of fuel loads in diverse environments. Topics of interest for this Special Issue may include the following:

- The characterization and modelling of fuel biophysical traits and attributes:
- Fuel moisture content (FMC): detection, estimation, and modelling;
- Live/dead fuel estimation and modelling;
- Usage of active and passive remote sensing (e.g., optical, radar, LiDAR) for estimating and modelling fuel loads (live or dead);
- Radiative transfer modelling applied to fuel load estimation and modelling;
- Tracking fire as an agent of land cover and land use change.

We invite contributions from field, laboratory, computational, and remote sensing perspectives that enhance our understanding of fuel loads in diverse ecosystems.

Guest Editors

Dr. Nicolas Younes

Dr. Paulo Jose Murillo-Sandoval

Dr. Li Zhao

Dr. Colleen Bryant

Deadline for manuscript submissions

30 September 2025



an Open Access Journal by MDPI

Impact Factor 4.1 CiteScore 8.6



mdpi.com/si/210085

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

mdpi.com/journal/remotesensing





an Open Access Journal by MDPI

Impact Factor 4.1 CiteScore 8.6



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 peerreview 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)

