

Special Issue

Remote Sensing of Solar Radiation Absorbed by Land Surfaces

Message from the Guest Editors

The Earth has a complex climate system driven, to a certain extent, by the amount of solar energy absorbed by the surface. This energy absorbed by the Earth's surface is usually calculated by combining two radiative variables:

- Global Incoming Solar Radiation at the surface level;
- Land Surface Albedo.

The global incoming solar radiation, composed of direct and diffuse components, essentially depends on the solar zenith angle, cloud coverage, aerosol load, gas absorption, and land surface albedo over bright surfaces. Land surface albedo has a complex dependency on the surface's properties (e.g., vegetation phenology, soil moisture, and land types). Solar radiation absorbed by land surfaces is of vital importance for life on Earth, energy balance, and water and carbon cycles. This Special Issue aims to publish recent developments in obtaining and validating these two variables. Review contributions are welcome, as well as papers showing applications for weather prediction, the energy sector, climate analysis, and the mitigation of the climate. Short communications giving constructive criticisms or discussing/amending previous studies are also welcome.

Guest Editors

Dr. Zhuosen Wang

Dr. Dominique Carrer

Dr. Christian Lanconelli

Dr. Angela Erb

Deadline for manuscript submissions

closed (30 November 2025)



Remote Sensing

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Impact Factor 4.1
CiteScore 8.6



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

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Message from the Editorial Board

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.

Editors-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

Prof. Dr. Dongdong Wang

Institute of Remote Sensing and Geographic Information Systems, Peking University, Beijing, China

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