Special Issue

Advancements in Atmospheric Turbulence Remote Sensing

Message from the Guest Editors

This Special Issue aims to gather cutting-edge research and review works on the emerging techniques, novel instrumentation, and data-driven methodologies for observing atmospheric turbulence. We welcome contributions addressing, but not limited to, the following themes:

Remote sensing techniques for detecting turbulence (e.g., lidar, radar, satellite, and hyperspectral);
Wind lidar observations, including offshore platforms and turbulence spectra analysis;
Satellite-based measurements, from detection to forecasting (e.g., MODIS, Aeolus);
Machine learning and data fusion for turbulence classification and prediction;
Clear-air turbulence (CAT) detection and aviation hazard mitigation;
Boundary layer monitoring, including diurnal and seasonal turbulence variability;
AI-driven nowcasting and forecasting of turbulence using real-time remote sensing data;
Turbulence in extreme weather, including gravity waves and instabilities;
The assimilation of observations into multi-scale turbulence models.

Guest Editors

Dr. Andreu Salcedo-Bosch

Consiglio Nazionale delle Ricerche, Istituto di Metodologie per l'Analisi Ambientale (CNR-IMAA), Contrada S. Loja, 85050 Tito Scalo, Italy

Dr. Simone Lolli

Consiglio Nazionale delle Ricerche, Istituto di Metodologie per l'Analisi Ambientale (CNR-IMAA), Contrada S. Loja, 85050 Tito Scalo, PZ, Italy

Deadline for manuscript submissions

30 January 2026

Remote Sensing

an Open Access Journal by MDPI

Impact Factor 4.1
CiteScore 8.6

mdpi.com/si/246571

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 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

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