

## Special Issue

# Spatio-Temporal Land Surface Temperature Retrieval Based on Ground-Based, Satellite Observations and Artificial Intelligence

### Message from the Guest Editors

Land Surface Temperature (LST) is a key physical variable in understanding land-atmosphere interactions, surface energy balance, and climate dynamics. Despite advances in satellite, reanalysis, and ground-based observations, challenges remain in producing long time-series, high-resolution, space-time continuous, and accurate LST data, particularly in heterogeneous or mountainous regions. Recent developments in artificial intelligence (AI) provide promising avenues for addressing these challenges through enhanced modeling, data fusion, and gap-filling techniques. The integration of ground-based measurement, satellite observation, and artificial intelligence to achieve accurate LST retrieval in time and space is an important development direction for the current surface temperature extension and application. This Special Issue aims to bring together cutting-edge research focused on innovative methods for spatio-temporal LST retrieval by integrating ground-based measurements, satellite remote sensing, and AI technologies. Contributions that enhance the accuracy, resolution, and applicability of LST products in environmental and climate-related fields are especially welcome.

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### Guest Editors

Dr. Bo-Hui Tang

Dr. Xiangyang Liu

Dr. Tian Hu

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### Deadline for manuscript submissions

28 February 2026



## Remote Sensing

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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.

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### Editor-in-Chief

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