



CALL FOR PAPERS

IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing

Special Issue on

“Remote sensing land surface temperature (LST) for generation, analysis, and application”

Knowledge of the land surface temperature (LST) provides information on the spatial and temporal variations of the surface equilibrium state. With the considerable increase in the amount and availability of remotely sensed thermal infrared data, the research of LST has gone through the process from retrieval to generation, analysis, and application, and from static to dynamic studies, and over global scale rather than ground point- or regional scale. In recent years, many methods have been developed for producing LSTs with high accuracy and high spatial and temporal resolution under all weather conditions, such as combination of LSTs from TIR and passive microwave data, thermal image fusion, LST downscaling, and temporal and angular normalization of LSTs. In addition, a growing number of applications have been carried out in retrieving evapotranspiration and soil moisture, revealing surface urban heat island patterns, monitoring agricultural drought, climate change and thermal anomalies by using remote sensed LST products. Obviously, we are in a new era with the emergence of thermal infrared satellites and LST products and the rapid development of LST retrieval and application.

This is a good opportunity to present new theories and methods about LST retrieval, analysis and application. The topics of interest include, but are not limited to, the following:

- New theory and method for the LST product generation
- LST products with improved features, e.g., all-weather capability, spatial and temporal continuous, high spatial and temporal resolution, temporal normalization, and angular normalization.
- Validation of LST products
- Spatial and temporal scaling of LST products
- Time series analysis of LST products
- Studies exploring the global changes associated with LST
- Combined applications of LST and other land surface parameters, e.g., vegetation parameters, Land-Use Land-Cover (LULC) information

Extended Schedule

Nov. 1, 2022 Submission system opening
Feb. 28, 2023 Submission system closing

Format

All submissions will be peer reviewed according to the IEEE Geoscience and Remote Sensing Society guidelines. Submitted articles should not have been published or be under review elsewhere. Submit your manuscript on <http://mc.manuscriptcentral.com/jstars>, using the Manuscript Central interface and select the “**Remote sensing land surface temperature (LST) for generation, analysis, and application**” special issue manuscript type. Prospective authors should consult the site <https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=9082768> for guidelines and information on paper submission.

All submissions must be formatted using the IEEE standard format (double column, single spaced). Please visit http://www.ieee.org/publications_standards/publications/authors/author_templates.html to download a template for transactions. Please note that as of Jan. 1, 2020, IEEE J-STARS has become a fully open-access journal charging a flat publication fee \$1,250 per paper.

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