

## Special Issue

# The Needs and Path Toward an SI-Traceable Space-based Climate Observing System

### Message from the Guest Editors

Recent years have seen increasing urgency from international coordinating bodies for establishing a space-based climate observing system capable of unambiguously monitoring indicators of change in the Earth's climate, as needed for international mitigation strategies. The harshness of the launch and the space environment has, to date, limited many satellite missions' abilities to robustly demonstrate SI traceability on-orbit at the accuracy and confidence levels needed. An order of magnitude of improvement is typically required for robust climate observations. The intent of this Special Issue is to present a community strategy on the benefits and consequential specifications of a space-based climate observing system along with a roadmap to implementation. Articles for this Special Issue are solicited on the following:

- Societal need and economic benefits
- Applications benefitting from higher-accuracy space-based observations
- Reflected-solar observations
- Thermal infrared observations
- Broadband radiation-budget measurements
- Microwave, radio-occultation, radar, and lidar observations
- Concepts to improve the global inter-calibration of space-based assets

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### Guest Editors

Dr. Bruce Wielicki

Dr. Greg Kopp

Dr. Tim Hewison

Dr. Nigel Fox

Dr. Xiuqing Hu

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### Deadline for manuscript submissions

closed (30 April 2020)



## 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

Dr. Prasad S. Thenkabail

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