Special Issue

Advances in Remote Sensing of Aerosol Optical Properties and the Effects on Radiation

Message from the Guest Editors

The potential impacts of aerosol radiative force on the climate have generated considerable recent interest. In general, atmospheric aerosols affect the climate in two ways: through the so-called direct effect, which is primarily human activity due to scatter incoming solar radiation, as a few aerosol types can absorb solar radiation, and through the indirect effect that plays a role in cloud formation because aerosols may serve as cloud condensation nuclei (CCN) and ice nuclei (IN), affecting the properties of clouds. Uncertainties in the understanding of their both effects (direct and indirect) limit our knowledge about climate change. In fact, aerosol radiative effects and their relationship to climate change remain inaccurate (IPCC 2013), and this uncertainty is more considerable in some ranges of the solar spectrum, for example, in the visible range. Solar radiation modification approaches, if implemented, introduce a widespread range of new risks to people and ecosystems, and these risks are not well understood (IPCC 2023). Thus, it is very important to publish research on how aerosols affect solar radiation in different wavelength ranges.

Guest Editors

Dr. Inmaculada Foyo-Moreno

Prof. Dr. Maria João Costa

Dr. Maria Pilar Utrillas

Prof. Dr. Juan Luis Guerrero Rascado

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

mdpi.com/journal/remotesensing

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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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