Special Issue

Advanced Remote Sensing Techniques in Application of Air Quality and Climate Study

Message from the Guest Editors

Air quality issues are still highly concerning as they have a confirmed impact on human health, meteorology, and climate change, as well as their interactions. Advanced remote sensing observations with the different platforms, including lidar, in situ instruments, MODIS, Himawari/AHI, GEOS/ABI, and novel retrieval algorithms, can provide high temporal resolution of regional and global scale air pollutant emissions and their transportation range; thus, it is important to understand how much uncertainty is brought by the variability in spatial and temporal dispersion of the pollutants, which can help making efficient emission policies and assessing the emission policies for urban air pollution mitigation.

Both comprehensive reviews and research articles on techniques and observations are welcomed to submit contributions that include, but are not limited to, the following topics:

Novel instruments, measurement methods, and algorithms;

Air pollutant emissions, transport, and removal;

Climate impacts of regional emissions;

Air pollutants-planetary boundary layer (PBL) interactions;

Spaceborne, airborne, shipborne, and ground-based observations for aerosol and greenhouse gasses.

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About the Journal

Message from the Editor-in-Chief

Continued developments in instrumentation and modeling have driven atmospheric science to become increasingly more complex with a deeper understanding of concepts, mechanisms, and interactions. This is the field that innovation built and it has led to a better appreciation for the complexity with atmosphere. Human life is intertwined in this complexity as we strive to better understand our atmosphere. Climate change is constantly stretching the limits of our thinking and forcing new ideas and concepts to be played out. Welcome to the Anthropocene!

Editor-in-Chief

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