Special Issue

Satellite-Based Air Quality Monitoring

Message from the Guest Editors

As the abilities of satellite instruments and relevant algorithms/models improve with time, we will likely see a growth in new applications that will significantly advance our understanding of air quality at both urban and global scales. This Special Issue focuses on (but is not limited to) using satellite remote sensing data to characterize emissions, concentration trends, human exposures, the attribution of exceptional events, long-range transport, as well as links to climate change with respect to air pollution. Particular attention is devoted to analyses of the interplay between air pollution and climate change (e.g., wildland fires, severe dust storm events, etc.), as well as applications of satellite-based air quality monitoring in low- or middle-income countries (LMICs) with limited ground-level, research-grade air monitors. The proposed studies will provide crucial insights into novel remote sensing techniques, approaches, and applications, showcasing satellite data as a promising supplement to ground-level air monitoring data to benefit air quality management and air pollution control.

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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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