Special Issue

Remote Sensing and In Situ Measurements of Aerosols and Trace Gases

Message from the Guest Editors

Aerosols, with their direct and indirect radiative forcing, are thought to be the largest source of uncertainty in global climate change modeling. Atmospheric aerosols exert influence on air quality and human health and have a direct impact on cloud processes and visibility variations. The optical, physical, and chemical properties of aerosols can be studied in situ or by remote sensing from space and the ground. Satellite remote sensing has evolved dramatically in recent decades. Continuous advancements in instrument design and retrieval techniques allow for more extensive and frequent observations of a wide range of aerosols and trace gasses. This Special Issue welcomes manuscripts that present new and advanced scientific contributions in the remote sensing of aerosols and trace gasses from satellite measurements, from both global and local perspectives. This includes submissions relating to the remote sensing of anthropogenic aerosols from industrial, biomass burning, and agricultural sources, as well as natural aerosols from volcanic eruptions, mineral dust, and biogenic aerosols.

Guest Editors

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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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