



Recent Advances in Optical Remote Sensing of Atmosphere

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Message from the Guest Editors

In recent decades, atmospheric measurement technology has developed rapidly due to the major needs of human exploration of space, urban air pollution and global climate change. Optical remote sensing technology, with its characteristics of long-range and non-contact measurements, plays an important role in atmospheric monitoring. Especially, the spaceborne optical instrument provide a unique perspective on the Earth atmosphere.

Here, we initiate a special issue entitled “Recent Advances in Optical Remote Sensing of Atmosphere”, mainly covering but not limited to the optical measurement technique and its application of the physical properties and abundances of atmospheric pollutant gases, greenhouse gases, clouds and aerosols, etc. More specifically, it will address topics included in the following list of remote sensing techniques/algorithms and its applications:

- Instrumentation: principle and design of prototype measurement instrument;
- Algorithm: development on the atmospheric forward and inversion model;
- Experiments: field campaign of multi-platform atmospheric sensors;
- Analysis: spatiotemporal trends, mechanisms of air pollution or atmospheric process





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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!

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