



Advances in Lidar Remote Sensing Research in the Middle and Upper Atmosphere

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Message from the Guest Editors

Dear Colleagues,

Due to the excellent advantages of high precision, high resolution, and specific chemical element component detection in the remote sensing field, Lidar has become an important technology for studying the middle and upper atmosphere. In the past decade, lots of studies have reported the characteristics of metallic atoms and ions in the higher thermosphere and ionosphere by lidar detections. Furthermore, researchers are developing lidars to detect the fluorescence scattering from helium atoms at 200 -1000km, and the lidar detection range is expect to extend extreme height.

This Special Issue is a compilation to showcase the current studies of the middle and upper atmosphere with lidar remote sensing technology. Authors are encouraged to submit an original paper that includes but not limited to the topics of the relevant lidar research on metallic species, neutral wind and temperature observations, lidar instrumentation, as well as the theoretical mechanism analysis and modeling.





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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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