



Gravity Waves in Ionospheric and Thermospheric Weather

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Message from the Guest Editors

Dear colleagues,

Gravity waves are associated with the lower atmosphere including the topography; volcanic eruptions, typhoons, tsunamis, earthquakes, etc.; storm-time Joule heating; and sunset terminator. Gravity waves originated from the lower atmosphere can propagate from the lower atmosphere to the thermosphere and ionosphere. It has a significant effect on the diurnal and seasonal variations of the thermosphere and ionosphere. Moreover, the seeding of ionospheric instability might be also related to gravity waves. There are still many open questions on the role of gravity waves in the variations of the thermosphere and ionosphere. The aim of this Special Issue is to provide recent advances in the field of gravity waves in thermospheric and ionospheric weather. It could help us to further understand how gravity waves behave in the stable and instable variations of the upper atmosphere (thermosphere and ionosphere). We invite you to submit your research for publication in this Special Issue, which aims to improve the understanding of atmospheric gravity waves in the variations of the thermosphere and ionosphere.





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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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