

Special Issue

Ion-Neutral Coupling in the E Region

Message from the Guest Editors

The E region (90–150 km) is an overlapped area between the thermosphere and ionosphere. There are not only tides and gravity waves that may propagate into the higher altitude to generate influence on the ionosphere and thermosphere, but also meteoroid ablation to deposit the metals atoms and ions. Furthermore, the existence of metal layers in the E and mesosphere can provide tracers for those ground-based metal fluorescence lidars to detect the temperature and neutral wind information. We invite you to submit your research for publication in this Special Issue, which aims to improve the understanding of ion-neutral coupling in the E region through a selection of papers. Both original research and review papers are welcome. We encourage contributions to topics including but not limited to:

- Explanation of observed sporadic metal layer based on multiple equipments and models
- Sporadic E layer morphology and corresponding explanation
- Modeling of the species in the E region
- Ion-neutral coupling between E and F region
- Influence of tides, gravity waves and planetary waves on E region species
- Influence of sudden stratosphere warming on E region species

Guest Editors

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Deadline for manuscript submissions

closed (17 June 2022)



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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

Dr. Daniele Contini

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