



Storms in Mid-Latitudes

Guest Editors:

Dr. Xuguang Cai

Laboratory for Atmospheric and
Space Physics, University of
Colorado, Boulder, CO, USA

Dr. Tingting Yu

Institute of Geology and
Geophysics, Chinese Academy of
Sciences, Beijing, China

Dr. Ercha Aa

MIT Haystack Observatory,
Westford, MA 01886, USA

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Message from the Guest Editors

In this Special Issue, we focus on the geomagnetic storm's impact in the mid-latitudes. During the storm, many phenomena occur in the mid-latitudes which rarely take place when no storm is present. For example, equatorial ionization anomaly crests and plasma bubbles (PB) are always in the low latitudes. However, the crests can sometimes expand poleward into mid-latitudes during storms, as can PBs. Storm-enhanced density, tongue of ionization, and traveling ionosphere disturbance can also occur in the mid-latitude during storms. Regarding thermosphere, the composition disturbances formed in the polar region during storms propagate toward the mid-latitudes, as well as the traveling atmospheric disturbance. The enhancement in neutral temperature and mass density may also propagate into the mid-latitudes.

This Special Issue welcomes reports and the investigation of the underlying mechanisms of these storm mid-latitude phenomena, as well as original new findings. Papers using newly launched missions such as GOLD, COSMIC-2, and ICON are especially welcomed.





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Editor-in-Chief

Dr. Daniele Contini

Institute of Atmospheric Sciences
and Climate (ISAC), National
Research Council (CNR), Str. Prv.
Lecce-Monteroni km 1.2, 73100
Lecce, Italy

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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Contact Us

Atmosphere Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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