# Special Issue

# Waves and Variability in Terrestrial and Planetary Atmospheres

## Message from the Guest Editors

Internal atmospheric waves are ubiquitous in terrestrial and planetary atmospheres and ionospheres. They contribute to atmospheric variability, produce fluctuations in ionization, and control the global structure of winds and temperature. They have been heavily studied in Earth's whole atmosphere by ground-based and space-born instruments. This Special Issue focuses on processes related to atmospheric waves, and the spatio-temporal variability in the atmosphere and ionosphere. We welcome contributions related to the Earth and other planetary atmospheres. Topics of interest for this Special Issue include:

- Remote sensing of terrestrial and planetary atmospheres.
- General circulation modeling and numerical modeling of planetary atmospheres.
- Observation of Earth's middle and upper atmospheres.
- Global structure, variability, and sources of gravity waves, planetary-Rossby waves, Kelvin waves, tide, and traveling ionospheric and atmospheric disturbances.
- Vertical coupling induced by propagating waves in planetary atmospheres and ionospheres.
- Role of wave and variability in atmospheric escape and cloud formation.
- Comparative planetology.

## Guest Editors

Dr. Erdal Yiğit

Dr. Alexander Medvedev

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Dr. Ed Thiemann

Prof. Dr. Jun Cui

## Deadline for manuscript submissions

closed (23 September 2023)

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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

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