

Special Issue

Mesosphere and Lower Thermosphere: New Diagnostic Methods and Recent Observations

Message from the Guest Editors

The aim of this Special Issue is to present the results of recent studies of the mesosphere and lower thermosphere (MLT), including new research techniques. Research on the development of new methods for MLT diagnostics and new observation results are welcome. We hope to receive manuscripts on diagnostics of the parameters of neutral and plasma components of the MLT region. We encourage papers on the study of the neutral temperature, density, parameters of turbulence and atmospheric waves, and sporadic layers of ionization. Theoretical studies in these areas are also suitable. We offer the following topics (not an exhaustive list):

- New methods for MLT research;
- Exposure to powerful HF radio emission, including APIs creation;
- Measurement of the neutral atmosphere parameters;
- Spatial-temporal dependences of the MLT neutral temperature and density;
- MLT dynamics: velocities of regular and turbulent motions;
- Atmospheric turbulence parameters;
- Acoustic-gravity waves;
- Ionized layers in the lower thermosphere.

Guest Editors

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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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