Special Issue

Ionospheric Responses to Solar Activity

Message from the Guest Editors

We are pleased to announce this Special Issue of Atmosphere, “Ionospheric Responses to Solar Activity”, which will bring together a wide range of studies on the relationship between solar activity the Earth’s ionosphere.

We invite original research for this Special Issue. Contributions may include experimental studies or modeling approaches that investigate ionospheric responses to solar variability. Contributions may take the following forms:

- Analyses of solar events that exert critical impacts on the Earth’s ionosphere;
- Studies of the effects that solar flare radiation and charged particles from solar wind have on the ionosphere (including particle precipitation and geomagnetic storms);
- Remote sensing of the ionosphere under different levels of solar activity (e.g., using GNSS measurements, incoherent scatter radars, ionosondes, VLF/ELF receivers, or geomagnetic field observations);
- Developments of theoretical and empirical models describing the state and dynamics of ionospheric parameters under diverse heliogeophysical conditions;
- Assessments of potential disruptive impacts of solar activity on modern communication and navigation systems.

Guest Editors

Dr. Susanna Bekker

Dr. Ilya Ryakhovsky

Prof. Dr. Sandro Radicella

Deadline for manuscript submissions

1 May 2026

Atmosphere

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Impact Factor 2.3
CiteScore 4.9

mdpi.com/si/259024

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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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