



## Intelligent Modeling of the Ionosphere and Troposphere for Radio Application

Guest Editors:

**Dr. Jian Wang**

School of Microelectronics,  
Tianjin University, Tianjin 300072,  
China

**Dr. Yu Zheng**

College Electronic Information,  
Qingdao University, Qingdao  
266071, China

**Dr. Jieqing Fan**

School of Electrical and  
Electronic Engineering, North  
China Electric Power University,  
Beijing 102206, China

Deadline for manuscript  
submissions:

**30 September 2024**

### Message from the Guest Editors

Dear Colleagues,

Since the latter half of the 20th century, the rapid advancement of wireless communication technology has profoundly influenced every facet of daily life, creating an imperative and practical demand for comprehending space weather in the cognitive realm and acquiring expertise in the principles of radio wave propagation.

This Special Issue aims to improve our understanding of the characteristics of the electromagnetic environment and electromagnetic wave propagation in the ionosphere and troposphere for radio applications using intelligent modeling techniques, and will focus on observations, models, simulations, innovative algorithms, and intelligent modeling techniques applied in the solar activity cycle, the ionosphere, the troposphere, and multi-physics coupling.

This Special Issue welcomes papers that discuss innovative multidisciplinary and multiparameter methods and applications for the modeling of phenomena in the solar activity cycle, the ionosphere, and the troposphere, as well as the possible interactions and indications of electromagnetic effects.





## 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!

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), Ei Compendex, GEOBASE, GeoRef, Inspec, CAPlus / SciFinder, Astrophysics Data System, and other databases.

**Journal Rank:** CiteScore - Q2 (*Environmental Science (miscellaneous)*)

## Contact Us

---

Atmosphere Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/atmosphere](http://mdpi.com/journal/atmosphere)  
[atmosphere@mdpi.com](mailto:atmosphere@mdpi.com)  
[X@Atmosphere\\_MDPI](https://twitter.com/Atmosphere_MDPI)