



## Recent Progress in Sun-Earth-Climate Research: Observation and Analysis

Guest Editors:

**Dr. Virginia Klausner de Oliveira**

Instituto de Pesquisa e Desenvolvimento (IP&D),  
Laboratório de Registros Naturais (Natural Records Laboratory), University of Vale do Paraíba, Av. Shishima Hifumi, 2911 - Urbanova, São José dos Campos SP 12244-390, Brazil

**Prof. Dr. Alan Prestes**

Instituto de Pesquisa e Desenvolvimento (IP&D),  
Laboratório de Registros Naturais (Natural Records Laboratory), University of Vale do Paraíba, São José dos Campos SP 12244-390, Brazil

Deadline for manuscript submissions:

**closed (29 April 2024)**

### Message from the Guest Editors

This Special Issue aims to explore Sun–Earth–Climate relationships and natural causes using observational data and computational analysis. Among the most used observational data, there are sunspots, geomagnetic, ionospheric, meteorological, climatic, and hydrological data. On the other hand, one can learn about the past of solar and climate variabilities by reading terrestrial archives. Bearing in mind that different natural mechanisms can affect the climate of a given place, in addition to anthropogenic effects, it is necessary to study the influence of solar activity, El Niño events, and other geophysical phenomena in order to understand climate variability. The study of solar activity, the structures of the interplanetary way, and their effects on the magnetosphere and ionosphere are also important to understand the physical dynamic processes that occur during magnetic storms, substorms, and auroras. Scientists from the University of Vale do Paraíba are dedicated to expanding tree ring use and its application, as well as other observational records, to improve our understanding of past climate and environmental history.





an Open Access Journal by MDPI

## Editor-in-Chief

### **Prof. Dr. Ilias Kavouras**

Environmental, Occupational,  
and Geospatial Health Sciences,  
CUNY School of Public Health,  
New York, NY 10027, USA

## 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, St. Alban-Anlage 66  
4052 Basel, Switzerland

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

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