



## Modeling of Surface-Atmosphere Interactions

Guest Editors:

**Dr. Rui Salgado**

**Dr. Maria José Monteiro**

**Dr. Mariana Bernardino**

**Dr. David Carvalho**

**Dr. Flavio T. Couto**

**Dr. Rita M. Cardoso**

**Dr. João P. A. Martins**

**Dr. Joao Carlos Andrade dos Santos**

### Message from the Guest Editors

This Special Issue launched in the framework of the workshop on “Numerical Weather Prediction in Portugal 2020” (<https://sites.google.com/view/nwpportugal>) aims to collect current novel papers, whether presented at the workshop or not, on the modeling of surface–atmosphere interactions. We invite researchers to contribute original research papers dealing with all aspects of the modeling of surface–atmosphere interactions, including:

- Modeling development, test, and validation;
- Surface observations and data assimilation;
- Surface reanalysis;
- Land–atmosphere interactions and feedback;
- Atmosphere–ocean interactions;
- Cryosphere–atmosphere interactions;
- Inland waters–atmosphere interactions;
- Boundary layer processes and modeling;
- Urban boundary layer;
- Atmospheric circulations over complex terrain;
- Land use and climate change;
- Fire–weather interactions and modeling;
- Dust mobilization;
- Transfer of greenhouse gases at the surface–atmosphere interface;
- Emission of pollen into the atmosphere.

Deadline for manuscript  
submissions:  
**closed (31 December 2021)**





an Open Access Journal by MDPI

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