



## Coupled Fire-Atmosphere Simulation

Guest Editors:

**Prof. Dr. Jason J. Sharples**

School of Science, University of  
New South Wales Canberra,  
Canberra, BC 2610, Australia

**Prof. Dr. Khalid Moinuddin**

Institute for Sustainable  
Industries and Livable Cities,  
Victoria University, Melbourne,  
VIC 3030, Australia

Deadline for manuscript  
submissions:

**closed (15 October 2020)**

### Message from the Guest Editors

Dear Colleagues,

Considerable effort has been put into the design and implementation of models that enable consideration of the two-way interaction between fire and the atmosphere.

This Special Issue provides an opportunity for those involved in modelling the fire–atmosphere system across a range of scales—from fine-scale combustion dynamics to large pyroconvective events—to present their work in a dedicated volume. We therefore invite you to contribute articles to this Special Issue that highlight advances, new insights, technical issues and emerging research directions associated with existing and emerging coupled fire–atmosphere modelling frameworks. Contributions that describe idealised simulations as well as real-world case studies are welcome.

It is our intention that this Special Issue will help to promote discussion of important modelling issues and highlight synergies and linkages across the various modelling platforms and research groups, which will lead to fruitful collaboration and progress in modelling the fire–atmosphere system at relevant scales.

Prof. Jason J. Sharples

Prof. Khalid Moinuddin

*Guest Editors*



[mdpi.com/si/30999](https://mdpi.com/si/30999)

# Special Issue



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)