



## Atmospheric Rivers – Bridging Weather, Climate and Society

Guest Editors:

**Dr. Mengqian Lu**

Department of Civil and  
Environmental Engineering,  
Hong Kong University of Science  
and Technology, Hong Kong,  
China

**Ms. Mengxin Pan**

Department of Civil and  
Environmental Engineering, the  
Hong Kong University of Science  
and Technology, Hong Kong,  
China

Deadline for manuscript  
submissions:

**closed (25 March 2022)**

### Message from the Guest Editors

Dear Colleagues,

Atmospheric rivers (ARs)—“a long, narrow and transient corridor of strong horizontal water vapor transport in the lower atmosphere”—play a significant role in maintaining the balance of moisture, momentum and energy on the Earth. *Atmosphere* dedicates this Special Issue to pushing forward scientific development in AR studies. We welcome original research and review articles on topics including, but not limited to:

- The exploration of new algorithms and datasets that improve the quantification of AR characteristics;
- New insights into favorable environmental conditions for long-lived and high-impact ARs over diverse spatial and temporal scales;
- Studies that address the regulation of multiscale climate variability based on the AR annual cycle, lifecycle and impacts;
- The development of dynamic and/or data-driven models that capture the interlinks among AR, weather, climate and society;
- Projections of future AR characteristics and impacts under different climate change scenarios.

*Guest Editor*



[mdpi.com/si/78947](https://mdpi.com/si/78947)

# 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)