

## Special Issue

# Recent Advances in Air-Sea Interactions, Climate Variability, and Predictability (2nd Edition)

### Message from the Guest Editors

Air-sea interaction is an active area of research that is crucial for reducing uncertainties in weather and climate predictions. For this Special Issue, we are inviting contributions covering the following topics:

- Air-sea interaction at the submeso, meso, and synoptic scales from the tropics to high latitudes;
- Recent advances in the observation and modeling of air-sea coupling and exchange;
- Large-scale modes of climate variability, such as ENSO, IOD, PDO, NAO, and AMO, and teleconnections;
- High-resolution modeling of marine boundary layer processes;
- Global and regional estimates of air-sea fluxes, including, but not limited to: heat, moisture, and momentum;
- The influence of air-sea coupling on climate variability and predictability, including extreme weather and climate events;
- Novel techniques involving air-sea interaction and coupling, including data-driven and machine learning approaches;
- Other topics on air-sea interaction, climate dynamics, and predictability.

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### Guest Editors

Dr. Wei Zhang

Dr. Duo Chan

Dr. Jie Feng

Dr. Yulong Yao

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### Deadline for manuscript submissions

closed (20 October 2025)



## Atmosphere

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*Atmosphere*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[atmosphere@mdpi.com](mailto:atmosphere@mdpi.com)

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## About the Journal

### 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!

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### 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

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