



Atmosphere-Ocean Interactions

Guest Editor:

Prof. Dr. Lian Xie

Department of Marine, Earth and Atmospheric Sciences (MEAS), North Carolina State University (NCSU), 2800 Faucette Drive, 1125 Jordan Hall Campus Box 8208, Raleigh, NC 27695, USA

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Message from the Guest Editor

The interactions between the atmosphere and the ocean play a central role in the development and the variability of a host of atmospheric and oceanic phenomena at various spatial and temporal scales, such as ocean surface waves, storm surges, tropical cyclones, coastal fronts and storms, El Nino and Southern Oscillation. Tremendous advances have been made in recent decades on the understanding of atmosphere-oceanic coupled processes and in the incorporation of such processes in weather and climate prediction models, including observations and analyses of coupled processes at different spatial and temporal scales, mechanisms for scale interactions of the coupled processes, numerical modelling of multi-scale coupled processes, data assimilation in coupled models, advanced data analytics applications in atmosphere-ocean coupled systems. This special issue is an opportunity for scientists and engineers in atmospheric and oceanic sciences, data analytics and computer sciences, and other related physical and mathematical science disciplines to publish articles on the observation, analysis, modelling and theoretical studies of atmosphere-ocean interactions from local to global scales.





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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

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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Contact Us

Atmosphere Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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