

Special Issue

The Effect of the Ocean on Weather and Climate

Message from the Guest Editor

Weather patterns are changing due to rising ocean temperatures because the ocean is the key to the movement of water across the globe, distributing heat and moisture around the world. Rising ocean temperatures are linked to some weather extremes and lead to more intense hurricanes, heavier rainfall, and snowstorms. Anomalous warm sea surface temperatures can influence weather patterns and shift precipitation, which leads to intense rainstorms and flooding in some regions and exacerbates drought conditions and wildfire risks in others. There may also be a connection between warming Arctic waters and the polar vortex icy blasts of cold air over the United States and Europe. For this Special Issue, we invite original and review articles that focus on observations from a wide range of sources and modeling approaches. The scope of this Special Issue is broad and any innovative research work concerning the role of ocean in weather and climate over a variety of temporal–spatial scales is welcome. Research concerning the effects of sea ice on weather/climate is also particularly welcome.

Guest Editor

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Deadline for manuscript submissions

closed (15 August 2023)



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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!

Editor-in-Chief

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