Special Issue

Arctic Weather and Climate Change

Message from the Guest Editor

The Arctic is of great interest since it has become heated more quickly than any other region on Earth. The observed evidence and numerical model simulations of Arctic climate change have established many important things; however, there are a lot of unknown peculiarities and effects.

This Special Issue focuses on the near-term climate change and circulation systems of the atmosphere and ocean. The list of subjects includes recent advances in understanding the interaction between the Arctic and mid-latitudes, possibly taking into account the solar activity conditions and the increased advection of heat to the pole, as well as the role of the "atlantization process" in the upper layer of the ocean. Furthermore, an important direction involves the investigation of feedback processes, thus taking into account their seasonal shifts and spatial structure. It is also essential to establish a connection between atmospheric circulation systems and weather extremes, focusing on the role of various circulation phenomena in the formation of extremes, the identification of synoptic and statistical features of extremes, and the development of their hydrodynamic models.

Guest Editor

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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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