



Atmospheric Blocking and Weather Extremes

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Message from the Guest Editors

Atmospheric blocking is an important phenomenon in the mid-high-latitude atmosphere, which has long been a hotspot and a challenge in the atmospheric science field. The occurrence of blocking circulation causes large-scale local exchange of energy and mass, resulting in dramatic temperature changes. Many extreme weather events (cold spells and heat waves) are associated with blocking circulation. At the same time, the theoretical study revealing the mechanism of blocking circulation is also a challenging issue due to its complex non-linear dynamics. Here, we propose a Special Issue on atmospheric blocking and weather extremes to collect articles about the research advances in atmospheric blocking and weather extremes from relevant scholars to improve our understanding of blocking dynamics and associated weather extremes.

We invite you to submit your papers to this Special Issue. Submissions are encouraged to cover a wide range of topics which may include atmospheric blocking and extreme weather (extreme cold, heat waves, etc.), atmospheric blocking and Arctic climate, theoretical studies of atmospheric blocking, and so on.





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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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