Special Issue

Temperature Extremes and Atmospheric Circulation

Message from the Guest Editors

The currently observed climate warming raises no doubts. It is manifested in the increasingly frequent occurrence of extreme weather phenomena, including heat waves. A similar direction of changes is forecasted for the next decades of the 21st century. The aforementioned changes are simultaneously accompanied by a decrease in the frequency of negative extremes, including cold spells. The occurrence of extreme air temperature values should be considered in the context of circulation conditions, because atmospheric circulation is recognized as one of the most important factors determining weather conditions at moderate latitudes.

Due to the serious threat for human health and life, as well as great economic losses related to the occurrence of extreme weather phenomena, the articles presented in this issue can be useful for a broad and diverse group of recipients.

This issue will give preference to studies regarding the occurrence of extreme air temperature values and their circulation conditions. Studies in the scope of forecasting the occurrence of such phenomena in the 21st century will also be welcome.

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Deadline for manuscript submissions

closed (10 June 2021)



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Impact Factor 2.3 CiteScore 4.9



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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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