

Special Issue

Air Temperature and Precipitation and Relationship to Atmospheric Circulation

Message from the Guest Editors

Atmospheric circulation is one of the main climate-forming factors that determine changes in the regime and territorial distribution of climatic elements. On the other hand, changes in air temperature affect baric centers in the atmosphere and lead to changes in atmospheric circulation characteristics. Knowledge of the role of atmospheric circulation in changes in air temperature and precipitation can contribute to a better determination of the extent of anthropogenic influence on climate change. The aim of this Special Issue is to contribute to the clarification of causal relationships in the climate system and specifically of the relationships among air temperature, precipitation, and atmospheric circulation at the global, regional, and local levels. Special attention will be given to the circulation mechanisms leading to the occurrence of extreme temperatures and precipitation. The results from original research works and review papers analyzing the peculiarities of the spatial and temporal variabilities of air temperature and precipitation in relation to global, regional, and local circulation patterns will be published in the Special Issue.

Guest Editors

Dr. Nina Nikolova

Department of Climatology, Hydrology and Geomorphology, Faculty of Geology and Geography, Sofia University "St. Kliment Ohridski", 1504 Sofia, Bulgaria

Dr. Martin Gera

Department of Astronomy, Physics of the Earth, and Meteorology, Faculty of Mathematics, Physics and Informatics, Comenius University Bratislava, 81499 Bratislava, Slovakia

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Atmosphere
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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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

Dr. Daniele Contini

Institute of Atmospheric Sciences and Climate (ISAC), National Research Council (CNR), Str. Prv. Lecce-Monteroni km 1.2, 73100 Lecce, Italy

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