



The Water Cycle and Climate Change

Guest Editors:

Dr. Jianyu Liu

Dr. Yulong Zhong

Dr. Yuqing Zhang

Dr. Tingting Ning

Deadline for manuscript
submissions:
closed (21 October 2022)

Message from the Guest Editors

Dear Colleagues,

The global climate has experienced a dramatic change in recent decades, a phenomenon known as global warming. Climate change intensifies the global and regional water cycle, leading to significant changes in precipitation, evapotranspiration, streamflow, and water storage. Understanding the water cycle change and its causes at different spatiotemporal scales is crucial for climate change assessments and water resources management. However, the mechanisms of water cycle change have not been fully understood yet. It is important and necessary to quantify the impacts of climate change, as well as other anthropogenic factors on the water cycle, such as streamflow, evapotranspiration, floods, and drought.

This Special Issue provides a platform for studying the water cycle and its response to climate change. We encourage research manuscripts to focus on the following (not exclusive) topics:

- (1) Contributions of climate change to the water cycle;
- (2) Streamflow simulation and attribution;
- (3) Floods and drought change and mechanisms;
- (4) Anthropogenic climate change detection in the water cycle;
- (5) Predictions of the future hydrological change.





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Editor-in-Chief

Prof. Dr. Ilias Kavouras

Environmental, Occupational,
and Geospatial Health Sciences,
CUNY School of Public Health,
New York, NY 10027, USA

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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Contact Us

Atmosphere Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
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