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Climate Change Effects on Hydrology and Water Resources

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Message from the Guest Editors

Dear Colleagues,

Climate change has emerged as one of the major threats to hydrology and water resource systems. Climate change is expected to alter hydrologic processes in many parts of the world; there is a tendency to increase precipitation occurrence and consequently increase the risk of flood in some regions, whereas climate change enhances the risk of drought and creates additional stresses over water resources in other regions. Unusual precipitation patterns such as varying annual rainfall patterns, change in quantity, frequency and intensity of rainfall would significantly alter hydrologic processes in temporal and spatial distribution of water resources and affect streamflow, soil moisture and water availability. These impacts directly affect water supply, the environment, infrastructure, ecosystems, and indirectly affect socio-economic behavior, as water is a critical element for human activities, human communities and local economies.

The purpose of this Special Issue is to provide an opportunity for researchers in different disciplines to publish their high impact research outcomes related to climatic change, hydrology and water resources.