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Advances in the Measurement, Utility and Evaluation of Precipitation Observations

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Message from the Guest Editors

Precipitation is a critical component of the hydrological cycle, directly impacting various hydrologic processes such as runoff, groundwater recharge, and flood management. The accurate measurement and evaluation of precipitation is vital for enhancing water resource management, refining climate models, and improving disaster preparedness strategies. The goal of this Special Issue is to collect papers (original research articles and review papers) to give insights about a comprehensive understanding of how precipitation observations can be enhanced, applied, and critically assessed to support hydrologic research and applications.

This Special Issue will welcome manuscripts that link the following themes:

- Statistical Modeling of Rainfall Patterns;
- Deep Learning Approaches for Precipitation Measurement;
- Leveraging Internet of Things (IoT) for Enhanced Precipitation Estimation;
- Multi-Source Rainfall Observation Fusion;
- Uncertainty and Bias Analysis in Rainfall Data;
- Impacts of Climate Change on Precipitation Trends;
- Remote Sensing Techniques for Precipitation Observation;
- Satellite-Based Precipitation Monitoring and Evaluation.