

Special Issue

Australian Hydroclimate Extremes in a Changing Climate

Message from the Guest Editor

Australia has become a hotspot of hydroclimate extremes and compounding hazards that trigger severe social distress in impacted communities and huge revenue losses. Given the exposure to frequent heatwaves, droughts, floods, bushfires, and cyclones, which are projected to intensify in a warmer climate, such cascading events will become more prevalent under climate change. However, scientific understanding of such cascading events under climate change, remains limited. This Special Issue aims to collate the contributions from hydrology and climate science communities on recent research advances in hydroclimate events and their impacts in regional Australia from compounding hazards in a changing climate. Original research articles on key characteristics and regional impacts based on observations, novel techniques (including machine learning), and underlying physical processes (including ocean–atmosphere–land interactions, hydrological/water cycles, climate modeling, event attribution, and CMIP-style future projections across various spatio-temporal scales), among other things, are invited.

Guest Editor

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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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