

Special Issue

Characteristics and Attribution of Extreme Rainfall Events

Message from the Guest Editors

Extreme rainfall events are occurring increasingly frequently due to global warming and are starting to receive more attention. These extreme rainfall events usually involve complex multiscale processes and controlling factors. How these complicated processes and factors contribute to the occurrence of extreme rainfall is still not fully understood at the regional and global scales. A deep understanding of the characteristics and attributes of the extreme rainfall events will greatly benefit both weather forecasting and climatic predictions. This Special Issue encourages research papers that reveal the features or mechanisms of extreme rainfall from different perspectives, including statistical works, observations, multiscale dynamics analysis, numerical simulations, predictability and theoretical analysis. Case and climatology studies of extreme rainfall are both welcome. The relevant topics include but are not limited heavy rainfall, persistent rainfall, severe convection, extratropical and tropical cyclones, mesoscale convection systems, orographic rainfall, and extreme rainfall under climate change.

Guest Editors

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Deadline for manuscript submissions

closed (31 December 2022)



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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

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