Special Issue

Forecasting and Modeling of Tropical Cyclones and Their Induced Wind and Precipitation

Message from the Guest Editors

Tropical cyclones (TCs) are often accompanied by strong winds and torrential rains, with a wide-ranging influence and great destructive power. Studying the evolution and mechanism of the winds and precipitation induced by TCs is important for regional disaster prevention and mitigation, efficient energy use, as well as regional sustainable development. This Special Issue is devoted to forecasting and modeling the wind, rainfall, and storm surges caused by TCs. Potential contributions to this Special Issue include TC studies focusing on climatology and meteorology. Analyses may include global or mesoscale numerical weather prediction systems; field campaign studies; satellite, air, sea, or ground-base observations; and/or other idealized, statistical, or historical data. Modeling can apply to mathematical algorithms, statistical methods, numerical model simulation, and artificial intelligence models. Manuscripts in this collection should provide scientific insight into some aspects of TCs' structure and involvement, and the induced wind, rainfall, and storm surges, providing a better understanding of how and why these natural events occur.

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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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