

Special Issue

Typhoon/Hurricane Dynamics and Prediction (2nd Edition)

Message from the Guest Editors

This Special Issue is the second edition in a series of publications dedicated to “Typhoon/Hurricane Dynamics and Prediction”

(https://www.mdpi.com/journal/atmosphere/special_issues/typhoon_hurricane_prediction). The advancement of data assimilation has greatly enhanced the forecast skill of tropical cyclone (TC) prediction. Satellite data that provide significant coverage over entire TCs and their surrounding environment offer good prospects for the improvement of the synoptic-scale condition that largely controls the track of TCs over vast oceans. The multi-utilization of various remote sensing data has been essential to determining the optimal impacts of observations on typhoon/hurricane forecasts. However, these are not being adequately pursued at present due to limited resources and great challenges arising in the application of advanced data assimilation techniques. Therefore, we especially encourage potential contributors to present works addressing model initialization in which convective processes associated with TCs are significantly modulated, and thus those that increase the dynamic complexity of TC track behaviors.

Guest Editors

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Deadline for manuscript submissions

30 September 2025



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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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