Special Issue

Numerical Weather Prediction Models and Ensemble Prediction Systems (2nd Edition)

Message from the Guest Editor

This Special Issue is the second volume in a series of publications dedicated to “Numerical Weather Prediction Models and Ensemble Prediction Systems” (https://www.mdpi.com/journal/atmosphere/special_issues/54WIE005M5). The aim of this Special Issue is to communicate advances in NWP models and EPS as state-of-the-art weather prediction tools that rely on the development of a seamless earth system modeling framework and make the best use of the model outputs in an objective way for both research and operational applications, such as in aviation, shipping, emergency warning systems, renewable energy, etc. Hence, this issue intends to collect contributions on new developments in data assimilation systems and integration of observing systems to support NWP models, improvements in model physics and parameterizations of subgrid-scale processes, and adoption of innovative computational grids and numerical methods leading to forecast skill enhancement as well as statistical approaches to evaluate their impact. The study of high-impact weather events, their evolution, and analysis of dynamical and physical characteristics through NWP applications are also encouraged.

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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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