Special Issue

The Impact of Data Assimilation on Severe Weather Forecast

Message from the Guest Editors

We are pleased to announce a new Special Issue in *Atmosphere* entitled “The impact of data assimilation on severe weather forecast”. For this Special Issue, we are inviting the submission of papers concerning different techniques, new or well-established, for data assimilation and their impact on forecasting meteorological parameters, especially precipitation. Forecast time ranges can span from nowcasting to the sub-seasonal time scale or longer. This Special Issue will focus in particular on deterministic forecasts, ensemble forecasting, and ensemble data assimilation systems. Papers considering sensitivity tests and hindcast studies using data assimilation are welcome, as well as specific case studies addressing the impact of data assimilation on weather forecasting or assessing its long-term performance; in the latter case, analysis is not limited to severe weather. The main focus of this Special Issue is numerical weather prediction models with data assimilation; however, other modeling systems may be considered. The impact of data assimilation on different observations (atmospheric/surface/soil) can also be explored.

Guest Editors

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Deadline for manuscript submissions

closed (3 July 2023)

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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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