Special Issue

Weather Radar in Rainfall Estimation

Message from the Guest Editors

An accurate knowledge of precipitation intensity and its dynamics is a great challenge for a variety of meteorological and climatological problems today, ranging from flood warning to water budget and climatological research. Weather radars are a key instrument in improving the knowledge of atmospheric processes and their prediction over a variety of temporal and spatial scales. Many weather radar networks have been implemented worldwide using different instruments and technologies. Advances in radar hardware and signal processing, as well as in related atmospheric products, have allowed for a better observation of precipitation systems. This Special Issue focuses on the use of weather radar measurements in understanding and quantifying precipitation processes and how these observations could affect our ability to characterize and predict atmospheric phenomenology. Topics of this Special Issue include but are not limited to:

- Quantitative precipitation estimation;
- Precipitation forecasting;
- Data assimilation in an NWP model;
- Radar data calibration/validation and merging with other instruments;

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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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