Special Issue

Air Quality Forecasting in Numerical Weather Prediction: From Simplified Aerosols to Complex Chemistry

Message from the Guest Editors

The COVID-19 pandemic with its impacts on economic and other activities and the devastating wildfire season sent air quality indices on a roller coaster around the world. While NASA's Terra satellite has shown a smoky pall over most of the U.S. West Coast, travelling as far as Europe, New Delhi residents could see the Himalayas for the first time in decades in April 2020 as PM10 air pollution levels dropped by 44%. No doubt these events have sparked discussions and fueled research on air quality forecasting. This special issue solicitates contributions on issues and research in air quality, smoke, aerosols, and chemistry in operational weather forecasting or in preparation for operations. We encourage authors to submit manuscripts for consideration on these scientific topics as well as on computational aspects of simple to complex chemical modeling in real-time numerical weather prediction applications.

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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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