



Physical Models and Statistical Methods in Atmospheric Environment

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Deadline for manuscript
submissions:

closed (17 June 2022)

Message from the Guest Editors

Along with the rapid economic development and urbanization, air pollution has become a hot topic, especially in developing countries such as China. Accurate air quality forecast is very important for air pollution mitigation. Chemical transport models and statistical methods are typical tools to predict air pollutant concentrations. In recent years, machine learning algorithms have also been proven to be a robust tool to simulate air quality with the advent of the big data era. The combination of data-driven methods and physical models promotes the high-quality advancement of this discipline. We invite manuscripts regarding the application of statistical models (machine learning) and chemical transport models (earth system models) in atmospheric environments. Topics of particular interest include (1) the application of physical models and machine learning models in air quality simulation, (2) the development of physical models and data-driven methods, and (3) the statistical models in data analysis of air pollutants in the field measurement. The Special Issue is not limited to the topics mentioned above.





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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!

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Journal Rank: CiteScore - Q2 (*Environmental Science (miscellaneous)*)

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