



Identification and Optimization of Retrieval Model in Atmosphere

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submissions:

closed (19 September 2022)

Message from the Guest Editors

Dear Colleagues,

The complete and fine knowledge of atmospheric physical quantity profiles and fields is of extrem importance as the first step in a wide range of meteorological applications, including diagnostic research studies, hazard warning, nowcasting and numerical forecasting.

We invite manuscripts regarding the retrieval models and algorithms of atmospheric profiles and fields, and the hydrometeor and weather phenomenon identification based on the atmospheric data and retrieved products. Relevant topics include, but are not limited to:

1. Optimization of profile and field retrieval models and methods of atmospheric physical quantities, including wind, temperature, pressure, aerosol and so on.
2. The interpolation, extrapolation and fitting algorithms for atmospheric physical quantities based on analytical and numerical methods.
3. Hydrometeor and cloud identification with improved fuzzy logic algorithms or machine learning.
4. Identification and tracking of extreme and severe weather events, such as tornado, large hail, supercell storm and flood-causing heavy precipitation.





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Editor-in-Chief

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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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