



Simulation and Visualization of Severe Weather

Guest Editor:

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Deadline for manuscript
submissions:

closed (30 June 2019)

Message from the Guest Editor

Dear Colleagues,

Each year, severe weather causes loss of life, destruction of property, and the disruption of society across the globe. Our ability to warn the public of severe weather events has improved, but further advances in forecasting are hindered by both a lack of physical understanding, as well as a lack of observational data.

We solicit contributions involving the **numerical simulation and visualization of severe weather events**. Rapid advances in computing hardware topologies have made it possible to simulate weather systems at unprecedented resolution, revealing fine-scaled features that elucidate the physical processes underlying severe weather events. These advances have created the need for new programming and analysis approaches that efficiently utilize massively parallel hardware topologies containing a mixture of CPUs and GPUs. We welcome submissions that showcase the use of modern computing hardware to both simulate severe weather events, as well as visualize the simulated data in ways that provide meaning and scientific insight.

Dr. Leigh Orf
Guest Editor





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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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