



## Advanced Numerical Techniques for Modeling and Data Assimilation of Atmosphere and Oceans

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### Message from the Guest Editors

This Special Issue explores “advanced” or “novel” numerical modeling and data assimilation techniques to assess weather, specifically the climate of the atmosphere and oceans. The aim is to provide a platform for presenting and testing new ideas and methods where authors will be able to express their creativity without restrictions and verifications so necessary for establishing scientific rigor. The regular process of creating, testing, and transitioning into operations of new ideas is often connected with practical limitations that can obstruct and discourage such creative efforts. The objective of this Special Issue is, therefore, to strongly encourage creative endeavors. We are looking for techniques that may bring challenges, but can potentially lead to fundamental breakthroughs, i.e., methods which are still in a relatively early experimental stage, but promise major advancements, and even paradigm shifts.





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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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