

Special Issue

New Insights into Computational Fluid Dynamics Applied to Renewable Energy

Message from the Guest Editors

The global transition towards clean energy has driven the rapid advancement of accurate and efficient modeling approaches. Computational fluid dynamics (CFD) has emerged as a powerful tool for deepening our understanding of wind energy systems and enhancing their performance through high-fidelity simulation of complex flow dynamics. This Special Issue aims to showcase the latest state-of-the-art research that leverages CFD in order to address key challenges in the efficient utilization and operation of wind energy systems. In this Special Issue, original research articles and reviews are welcome. Topics of interest include, but are not limited to, the following:

- Wind resource assessment;
- Wind farm layout optimization;
- Wind turbine wake dynamics;
- Wind power forecasting;
- Intelligent cooperative control of wind farms;
- Aero-hydrodynamic effects on wind turbine structures;
- Interaction between atmospheric boundary layer, complex terrain, and wind turbine wakes.

We look forward to receiving your contributions.

Guest Editors

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About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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