

Special Issue

Computational and Experimental Fluid Dynamics for Wind Energy

Message from the Guest Editor

Numerical simulation and computational fluid dynamics (CFD) play a pivotal role in advancing wind energy research, offering a virtual laboratory to analyze complex fluid flow phenomena around wind turbines. The significance lies in their ability to predict aerodynamic forces, assess turbine performance, and optimize designs without the need for extensive physical experiments. Numerical simulations provide insights into the intricate interactions between the atmosphere and wind turbine components, aiding in the development of more efficient and reliable wind energy systems.

This Special Issue aims to present the most recent advances, including methodologies and applications, related to numerical simulations and computational fluid dynamics in the field of wind energy. Topics of interest for publication include, but are not limited to, the following: advances in numerical methods for fluid dynamics, CFD of single turbine or wind farm flow dynamics, novel turbine blade design, advances in wind farm control, and interactions between atmospheric boundary layer flow and wind farms, among others.

Guest Editor

Dr. Yaqing Jin

Department of Mechanical Engineering, The University of Texas at Dallas, Richardson, TX 75080, USA

Deadline for manuscript submissions

closed (15 January 2026)



Energies

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 7.3



mdpi.com/si/191358

Energies
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
energies@mdpi.com

[mdpi.com/journal/
energies](https://mdpi.com/journal/energies)





Energies

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 7.3



[mdpi.com/journal/
energies](https://mdpi.com/journal/energies)



About the Journal

Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

Editor-in-Chief

Prof. Dr. Enrico Sciubba
Department of Mechanical and Industrial Engineering, University
Niccolò Cusano, 00166 Roma, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, RePEc, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

CiteScore - Q1 (Control and Optimization)