



Advances in Fluid Dynamics and Wind Power Systems

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Deadline for manuscript
submissions:

closed (11 July 2024)

Message from the Guest Editors

Dear Colleagues,

Wind power is a critical source of renewable energy for the decarbonisation of electricity systems with the aim of reducing greenhouse gas emissions. The unsteady wind-wave conditions and the six degrees of freedom motions of floating structures all contribute to a highly complex unsteady flow around a wind turbine, which has a significant impact on the performance of wind power systems. Extensive investigations of unsteady flow behaviours and an accurate prediction of the aerodynamics of wind turbines become indispensable, and advanced techniques and knowledge in fluid dynamics play a vital role in optimising the power generation from wind energy systems. This Special Issue aims to bring together the most recent advances in fluid dynamics to tackle the challenges and issues faced by modern wind power systems. Original research and review articles are welcome.

- Fluid–structure interaction;
- Rotor aerodynamics;
- Blade aeroelasticity;
- Aeroelastic instabilities;
- Wake modelling;
- Wake interaction;

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Message from the Editor-in-Chief

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