Special Issue

Novel Research on Permeable and Porous Elements in Wind Engineering

Message from the Guest Editors

This Special Issue primarily aims to discuss the aerodynamic performance, applications, and modelling approaches of permeable/porous structures. Given these structures' wide range of applications, this issue recognizes aerodynamic studies on any building or structure with permeable/porous elements exposed to the wind as valuable contributions. In particular, research on solid fences, as a special case of zero-porosity barriers, will also be considered. Original research articles and reviews are also welcome in this Special Issue. Research areas of interest include (but are not limited to) the following:

- The aerodynamic behaviour of permeable/porous elements, e.g., wind barrier, porous skin façades, etc.
- Novel modelling approaches of permeable/porous elements in numerical simulations and wind tunnel experiments.
- Evaluations of the accuracy of current modelling approaches of permeable/porous elements
- Wind loads on the structures with permeable elements.
- Vortex-induced vibrations of bridge decks when adopting porous or solid barriers.
- Sand mitigation measures with barriers.
- The application of trees as windbreakers.

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About the Journal

Message from the Editor-in-Chief

Wind is an open access journal dedicated to disseminating rigorously peer-reviewed publications to advance knowledge and technology in wind research-related areas such as wind engineering, wind energy and wind environment. The journal brings new opportunities for actively disseminating fresh, innovative and multidisciplinary wind-related concepts and applications. It covers aspects related but not limited to meteorology; civil, mechanical, aeronautical and electrical engineering; risk analysis and economic, social and environmental impacts.

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Author Benefits

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 28.3 days after submission; acceptance to publication is undertaken in 6.7 days (median values for papers published in this journal in the first half of 2025).