

## Special Issue

# Study on Wind Load of High-Rise and Long-Span Structures Facilitated or Assisted by AI Techniques

### Message from the Guest Editor

It is widely acknowledged that Artificial Intelligence (AI) techniques have become a focal point in various industries today, including the field of wind engineering. The three key elements of the AI technique are the computing power, the algorithm, and the data. It is reasonable to assume that the initial two elements have been adequately developed to facilitate the integration of AI in the field of wind engineering. However, the database is quite limited in scope, possibly due to the difficulty in obtaining these elements from field measurements, wind tunnel tests, or numerical simulations, and the limited willingness of the holders to share them with the community. This Special Issue of the journal *Buildings* is dedicated to exploring the state-of-the-art applications of AI techniques in the study of wind loads of high-rise and long-span structures. Research papers and literature reviews reporting works that enrich the database of wind loads of typical high-rise and long-span structures using traditional techniques (physical tests and numerical simulations) to facilitate the application of AI techniques are welcomed.

### Guest Editor

Dr. Xiao-Xiang Cheng  
School of Civil Engineering, Southeast University, Nanjing 211189, China

### Deadline for manuscript submissions

31 October 2025



## Buildings

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*Buildings*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[buildings@mdpi.com](mailto:buildings@mdpi.com)

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## About the Journal

### Message from the Editor-in-Chief

Current urban environments are home to multi-modal transit systems, extensive energy grids, a building stock, and integrated services. Sprawling neighborhoods are composed of buildings that accommodate living and working quarters. However, it is expected that the cities and communities of the future will face complex and enormous challenges, including maintenance, interconnectivity, resilience, energy efficiency, and sustainability issues, to name but a few. A smart city uses advanced technologies and a digital infrastructure to improve the outcomes in every aspect of a city's operations. A smart building optimizes the experience of occupants, staff, and management by using a modern and connected environment. Innovations in technology that can bring dramatic improvements to design, planning, and policy are critical in developing the cities and buildings of the future.

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### Editor-in-Chief

Prof. Dr. David Arditi

Construction Engineering and Management Program, Department of Civil, Architectural, and Environmental Engineering, Illinois Institute of Technology, 3201 South Dearborn Street, Chicago, IL 60616, USA

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

#### Journal Rank:

JCR - Q2 (Construction and Building Technology) /  
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#### Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 14.9 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the first half of 2025).