



Structural Performance and Hazard Mitigation of Large-Scale Frame Structures

Guest Editors:

Dr. Junjie Wang

Prof. Dr. Hetao Hou

Dr. Zeyu Zhou

Dr. Dongchen Ye

Qun He

Deadline for manuscript
submissions:

closed (31 December 2023)

Message from the Guest Editors

Frame structures, made of steel, reinforced concrete, or a combination of both, are widely utilized in modern building construction. In recent decades, the structural performance and design methods of large-scale frame structures under natural or man-made hazards have drawn widespread attention in the civil engineering community because of the possibility of collapse. These hazards include earthquakes, hurricanes, tornadoes, floods, tsunamis, blasts, fire, etc. To increase structural resilience and reduce collapsing potential for frame structures, new knowledge, tools, and standards are required to improve structural performance to withstand these hazards.

This Special Issue welcomes new submissions of original research and reviews on risk evaluation, risk reduction, structural resilience, or the structural robustness of large-scale frame structures, including but not limited to:

Building-level structural performance assessment;

Performance criteria development of structural systems;

Risk evaluation and mitigation of structural systems;

Structural robustness and structural resilience of structural systems;

Structural performance of composite structures.





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

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.

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), Inspec, and other databases.

Journal Rank: JCR - Q2 (*Engineering, Civil*) / CiteScore - Q1 (Architecture)

Contact Us

Buildings Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/buildings
buildings@mdpi.com
X@Buildings_MDPI