



Advances in the Behaviour of Steel Structures

Guest Editor:

Dr. John Papangelis

School of Civil Engineering, The
University of Sydney, Sydney,
NSW, Australia

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Message from the Guest Editor

Steel structures are widely used in construction around the world, from simple portal frames to skyscrapers. Steel has many advantages, including its durability and high strength-to-weight ratio. The behaviour of steel structures is a complex phenomenon that has inspired a prodigious amount of research over the years. Steel structures are built in a multitude of shapes and sizes and are required to support many different types of loads. How steel structures respond to these loads has been the subject of much research since the 1800s.

This Special Issue seeks high-quality papers considering the behaviour of steel structures, their stability, mechanics, design and testing, reliability, non-linear analysis, thin-walled structures, cold-formed structures, hot-rolled and welded sections, plate and shell structures, beams with corrugated webs and stainless-steel structures.

This Special Issue on advances in our understanding of the behaviour of steel structures will be a valuable addition to the existing research on this subject.

For further reading, please follow the link to the Special Issue Website at:

https://www.mdpi.com/journal/buildings/special_issues/Steel_Behaviour





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.

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Buildings Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
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