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Steel Structures with Double-Symmetric Hollow-Section Columns: Design, Testing and Finite Element Analyses

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Deadline for manuscript
submissions:

30 September 2024

Message from the Guest Editors

Dear Colleagues,

This Special Issue focuses on the advanced applications and innovations related to hollow-section column steel structures. Double-symmetric steel columns have emerged as a key structural element in modern construction, offering unique advantages such as higher load-bearing capacity, improved stability, symmetric tridimensional behaviour, and enhanced architectural aesthetics, although complex beam-to-column connections are a challenge.

The papers featured in this Special Issue focus on a diverse range of aspects, including structural design, material advancements, seismic resilience, testing, sustainability considerations, and computational modelling techniques specific to hollow-section columns. The research presented herein aims to contribute to the evolving field of steel structural engineering by promoting innovative designs, novel applications, and sustainable practices in hollow-section column steel structures. This collection of research papers endeavours to inspire further exploration and foster collaborations, ultimately advancing the understanding and implementation of hollow-section columns to meet the evolving demands of contemporary construction.



mdpi.com/si/186027

Special Issue



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Message from the Editor-in-Chief

Symmetry is ultimately the most important concept in natural sciences. It is not surprising then that very basic and fundamental research achievements are related to symmetry. For instance, the Nobel Prize in Physics 1979 (Glashow, Salam, Weinberg) was received for a unified symmetry description of electromagnetic and weak interactions, while the Nobel Prize in Physics 2008 (Nambu, Kobayashi, Maskawa) was received for the discovery of the mechanism of spontaneous breaking of symmetry, including CP symmetry. Our journal is named *Symmetry* and it manifests its fundamental role in nature.

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