Special Issue

Experimental and Numerical Investigation of Compression Behavior in Steel Structures

Message from the Guest Editors

Steel is one of the most widely used materials in the product manufacturing and construction industries. Such applications range from low-carbon sheet steels for automotive applications, through structural steels for bridges, buildings, etc., to stainless steels, high-alloy specialty steels, and tool steels. Furthermore, in many products the compressive behavior must be taken into consideration as a design loading requisite. This Special Issue aims to cover recent progress and new developments in experimental and numerical studies of compressive behavior of steel structures and structural parts. Topics of interest include, but are not limited to:

- mechanical behavior
- experimental characterization
- constitutive modelling
- numerical simulation
- industrial applications
- construction and infrastructure applications
- life-cycle cost assessment and optimization
- crashworthiness
- topology optimization
- innovative design solutions
- fatigue and fracture

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About the Journal

Message from the Editorial Board

Metallic materials play a vital role in the economic life of modern societies; contributions are sought on fresh developments that enhance our understanding of the fundamental aspects related to the relationships between processing, properties and microstructure – disciplines in the metallurgical field ranging from processing, mechanical behavior, phase transitions and microstructural evolution, nanostructures, as well as unique metallic properties – inspire general and scholarly interest among the scientific community.

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