Special Issue

Sustainable and Resilient Steel Structures

Message from the Guest Editors

The main aim of this Special Issue is to rapidly disseminate state-of-the-art experimental, theoretical, computational and/or numerical research in sustainable and resilient steel structures. Topics of interest include, but are not limited to, the following aspects of **sustainable and resilient steel structures:**

- Performance-based design or analysis criteria;
- Life-cycle cost assessment and optimization;
- Improving the sustainability of steel infrastructures;
- Modeling of steel structures subjected to single or multiple hazards;
- Innovative structural steel systems;
- Novel connections and fastening systems;
- Repair and restoration following extreme events;
- Innovative design solutions for complex steel infrastructure challenges;
- Design and assessment issues with high-rise buildings, offshore structures, transmission towers and pipelines under extreme loads;
- Data science in steel infrastructures (inclusive of structural health monitoring);
- Sensors for monitoring steel infrastructures;
- Frame optimization and sensitivity analysis;
- Topology optimization of structural members and connections;
- Cast steel components.

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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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manuscripts are peer-reviewed and a first decision is provided to authors approximately 18 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the first half of 2025).

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