# **Special Issue**

# Finite Element Analysis of Mechanical Behavior of Metallic Materials

# Message from the Guest Editor

In recent years, the high demand for the virtual design of structures and the fast adoption of concepts, such as the digital twin by automotive and aerospace industries, has led to a significant increase in the integrated computational materials engineering of metallic materials.

This Special Issue aims to present the latest advances in the application of FEM for modeling metallic materials, including novel algorithmic aspectsand new constitutive models. We are seeking the work on modeling a wide range of metallic materials across different length scales, ranging from various alloys to metallic composites. These modeling efforts could focus on a variety of applications⊠ not limited to additive manufacturing, forming, welding and joining, metallic biomaterials, corrosion, and high-temperature applications. Also welcome the research articles that integrate FEM and machine-learning algorithms into the analysis and design of metallic material and metal composites.

### **Guest Editor**

Dr. Soheil Soghrati

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### Deadline for manuscript submissions

closed (31 May 2022)



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# **About the Journal**

# Message from the Editor-in-Chief

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.

#### Editor-in-Chief

### Prof. Dr. Yong Zhang

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#### **Author Benefits**

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indexed within Scopus, SCIE (Web of Science), Inspec, Ei Compendex, CAPlus / SciFinder, and other databases.

### **Journal Rank:**

JCR - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Metals and Alloys)

## **Rapid Publication:**

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).

