Special Issue

Advances in Numerical Modelling of Fatigue and Fracture in Metals

Message from the Guest Editors

The development of advanced numerical methods with which to deal with fatigue and fracture phenomena, in the context of structural integrity of critical components, constitutes a challenging but promising area of clinical progress. Modern tools, developed through the use of the finite element method, extended finite element method, and meshless methods, among others, have demonstrated themselves to be viable alternatives to classical design concepts. This Special Issue is focused on numerical methods and computational approaches to address fatigue and fracture problems. Researchers are encourages to submit examples of innovative and successful industrial applications, as well as nonconventional numerical approaches. Research and review papers are also welcome.

Guest Editors

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Deadline for manuscript submissions

closed (31 January 2024)

Metals

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Impact Factor 2.5
CiteScore 5.3

mdpi.com/si/170115

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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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