Numerical Simulation Methods for Analyzing Fatigue and Fracture Behavior in Metallic Materials

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Deadline for manuscript submissions:
closed (20 July 2024)

Message from the Guest Editors

With the recent improvement of immense computing power, research has been increasing on the use of different numerical modeling and data-driven machine-learning-based methods to analyze fatigue and fracture behavior of metallic materials at all length scales. This is an important research trend. In this regard, research is carried out at various levels of general and micro/nanoscales. The selection of tools based on artificial intelligence is also a real challenge.

The goal of this Special Issue is to publish and highlight the most recent research on this topic in order to advance our understanding of the mechanical and fatigue-life behavior of single- and multiphase metallic materials. Accepted research will focus on new advanced methods or techniques to test, analyze, and monitor the behavior of a material or component during fatigue or fracture mechanics loads. Research based on different numerical models and data-driven approaches for predicting the fatigue life of metallic materials at all scales will be highly prioritized.

Special Issue

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Message from the Editor-in-Chief

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