



## Characterization and Modelling of Fracture and Fatigue in Metallic Materials

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### Message from the Guest Editors

Dear Colleagues,

In order to ensure the prevention of sudden and catastrophic failures in industrial and civil metallic structures (such as pipes, vessels, machinery, engines, rotating components, automobiles, trains, turbine blades, ship hulls and bridges), numerous researchers have dedicated their studies to understanding the phenomena of fracture and fatigue for more than a century. During this time, the field of the fracture and failure of metallic materials has progressed significantly owing to the development of new theories, and advances in computational methods and experimental techniques, and corrective, diagnostic and preventive tools have matured. However, with the development of new materials, technologies and manufacturing processes, revolutionary advancements in the fracture and fatigue failure of metallic materials are required.

This Special Issue aims to collect a wide range of original contributions on various aspects of fatigue and fracture for metallic materials.





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## 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.

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