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Mechanics, Fatigue and Fracture of Metallic Materials (Second Edition)

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Deadline for manuscript submissions:
closed (20 March 2025)

Message from the Guest Editors

Metallic materials are one of the largest groups used to produce machine components and structures. Moreover, the development of technology enables the creation of new alloys of these materials that also affect their individual characteristics depending on their production method. Therefore, the impact of these features on durability and mechanical strength requires knowledge of the damage mechanisms and their development under static and cyclic loadings.

Experimental research allows for understanding the damage mechanism, analyzing it in depth and providing information for computer simulations.

The Special Issue is devoted to the development of experimental and theoretical methods of evaluation and a description of the behavior of metallic materials subjected to fatigue loads, including but not limited to the following topics:

- Uniaxial and multiaxial fatigue;
- Damage mechanisms;
- Damage accumulation models;
- Fatigue crack growth;
- Mixed-mode fracture;
- Fatigue life assessment;
- Failure analysis;
- Metal composites.

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Message from the Editor-in-Chief

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Journal Rank: JCR - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Condensed Matter Physics)

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