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## Advances in High Cycle Fatigue and Fracture Failure of Metallic Materials and Components

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### Message from the Guest Editors

Dear Colleagues,

Most instances of structural failures in engineering can be attributed to High Cycle Fatigue phenomena. Thus, a profound understanding of the fatigue and fracture behaviors of the materials and structural elements is indispensable for enhancing their longevity and safety.

Innovative materials and processes, such as additively manufactured materials, have spurred the use of novel methodologies to analyze intricate configurations. Consequently, these advancements necessitate specialized approaches to simulate the fracture responses, ensuring compliance with stringent safety requirements.

This Special Issue intends to cover several topics, which include, but are not limited to:

- Fracture mechanics approaches for fatigue assessment of materials and components;
- Defect assessment and high cycle fatigue resistance;
- Fatigue and fracture of metallic alloys fabricated through additive manufacturing;
- Novel fatigue design criteria of mechanical components;
- Experimental methods in fracture mechanics.





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## Editor-in-Chief

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## Message from the Editor-in-Chief

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