

## Special Issue

# Fatigue Damage Behavior and Mechanisms: Latest Advances and Prospects

### Message from the Guest Editors

This Special Issue is dedicated to the comprehensive study of fatigue issues in engineering materials, focusing on their behavior under multi-axial and complex loading conditions. We seek to publish original research and review articles that advance our understanding of fatigue phenomena, predict the lifespan of materials under fatigue, and improve the methods of fatigue damage assessment. We invite contributions regarding a range of topics including, but not limited to, the following:

- Fatigue problems of structural materials;
- Multi-axial fatigue of materials, and criteria for describing and predicting fatigue life;
- Experimental studies of modern materials, including those produced by additive manufacturing, as well as welded joints, FSW joints, and others;
- Numerical methods supporting experimental research in material fatigue;
- Assessment of fatigue damage under simple and complex states of loads for cyclic and random loadings.

### Guest Editors

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### Deadline for manuscript submissions

10 March 2026



## Applied Sciences

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## About the Journal

### Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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### Editor-in-Chief

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