Special Issue

Combined Fatigue and Multi-Scale Simulation

Message from the Guest Editor

To improve and reflect on material design and engineering applications, combined fatigue behavior and multi-scale simulation should be addressed. On the other hand, knowledge of the relationship between combined fatigue, including creep-fatigue, low–high-cycle fatigue, and very-high-cycle fatigue, is necessary and should be generated based on experiments and simulations. This Special Issue provides an exchange of opinions on recent developments in the field of combined fatigue and multi-scale simulation. It is devoted to the development of experimental and theoretical methods and multi-scale models to evaluate and descript the behavior of materials subjected to various types of combined loads, including, but not limited to, the following topics:

- Creep fatigue;
- Low–high-cycle fatigue;
- Very-high-cycle fatigue;
- Deformation/damage mechanisms;
- Microstructure evolution;
- Fatigue life assessment;
- Multi-scale simulation.

Guest Editor

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Deadline for manuscript submissions

closed (20 March 2026)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/209987

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Message from the Editorial Board

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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