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# Fatigue and Fracture Mechanics: Applications and Trends II

Guest Editors:

### Message from the Guest Editors

Prof. Dr. José António Correia This Special Issue (SI) covers a wide range of modern achievements in the study of the behavior of solids with Dr. Abílio M. P. De Jesus cracks—from studies of cyclic durability and the nucleation and growth of a fatigue crack to solving a number of Prof. Dr. Guian Qian complex problems of fracture mechanics. In this SI, limiting Prof. Dr. Pavlo Maruschak and prelimiting equilibrium states of materials and structures under single, multiple, thermal, and dynamic loading in elastic, viscoelastic, and elastoplastic bodies with cracks will be considered. We also invite you to submit Deadline for manuscript articles on new criteria for crack resistance of materials for submissions: closed (20 April 2023) structural integrity.

> Particular attention will be paid to the development of methods for accelerated determination of endurance limits based on deformation and energy criteria. The problem of predicting the development of cracks and probabilistic fatigue modeling will also be discussed.

- fatigue
- fracture mechanics
- fatigue crack growth
- structural integrity
- computer-aided fracture mechanics
- computer-aided structural integrity
- failure mechanisms
- cyclic plasticity
- applications and design codes
- probabilistic fatigue modeling





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## **Editor-in-Chief**

### Message from the Editor-in-Chief

**Prof. Dr. Giulio Nicola Cerullo** Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy 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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