

## Special Issue

# Fatigue Crack Growth in Metallic Materials (3rd Edition)

### Message from the Guest Editors

Design against fatigue is fundamental in components submitted to cyclic loads. The damage tolerance approach assumes the presence of small cracks and the propagation life is used to define inspection intervals. The ability to accurately predict fatigue crack growth rates is therefore fundamental. Despite the significant research developed in the last several decades, further work is needed to understand the fundamental mechanisms and to accurately model fatigue crack growth. The coexistence of ductile and brittle mechanisms, and crack tip shielding are not totally understood. The appearance of new metallic alloys, the development of new technologies such as additive manufacturing introduces challenging complexities. On the other hand, the development of numerical and experimental tools gives opportunity for a better understanding of the phenomenon. We invite researchers to submit papers focused on the study of fatigue crack growth in metallic materials. The study of fundamental mechanisms and crack driving parameters, the development of new models and equipment, and the application to real components and structures are welcome. Both original and review papers are welcome.

### Guest Editors

Prof. Dr. Fernando Ventura Antunes

Prof. Dr. Francisco A. Díaz

Dr. Diogo Neto

### Deadline for manuscript submissions

20 September 2025



## Materials

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### Message from the Editor-in-Chief

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