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Fatigue and Fracture Behaviour of Additively Manufactured Mechanical Components

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Deadline for manuscript submissions:
closed (15 September 2019)

Message from the Guest Editors

Dear Colleagues,

The advent of additive manufacturing (AM) processes applied to the fabrication of structural components creates the need for design methodologies supporting structural optimization approaches that take into account the specific characteristics of the process. This Special Issue of Applied Sciences aims at bringing together papers investigating features of AM processes with relevance to the mechanical behavior of AM structural components. Although the focus of the issue is on AM problems related to fatigue and fracture, articles dealing with other manufacturing processes with related problems can also be included.The submission of papers on numerical simulation or reporting experimental work, or a combination of both, is welcome. The application of damage and fracture mechanics concepts, the appraisal of stress concentration effects, and the consideration of residual stresses and anisotropic behavior will be of particular interest for a range of AM structural applications that can be foreseen to go from biomedical engineering to aerospace components.

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Prof. Dr. Paulo de Castro
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Guest Editors

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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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