Guest editorial: New trends and studies in structural integrity assessment

Research activity in Fracture Mechanics has been growing steadily in recent years, spreading throughout a number of exciting areas. This number focuses on recent topics in Structural Integrity, which arise in contexts related to the way we interact with our world and devise new or improved structures which, in turn, require the continuous development and improvement of methodologies to evaluate the aspects related to material or structure behavior under loading.

The topics in this number focus on improved detection and evaluation techniques and algorithms for materials and structures subjected to fatigue loading or impact phenomena, as can be found in real life examples of our days in metallic or polymeric components, and make a definite contribution to the state of the art of the alluded topics.

The papers on this number originated in work presented in ICSI2021, the 2021 International Conference on Structural Integrity, despite the significant amount of extra supplementary work provided to a written publication reflects the commitments of all authors to the standards in the journal, as expected in communications initiated at a conference.

The biennial ICSI conferences, at the end of summer, were planned to be a referential source of inspiration for the researchers in the Structural Integrity field that want to keep abreast of the recent developments from reference researchers around the globe. The conference has seen an unprecedented growth in volume and quality in 2021 and the organizers welcome the reader to judge the excellence of the conference by this small token of representative work.

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