Special Issue

Variable Stiffness Composite Materials and Structures

Message from the Guest Editors

This Special Issue (SI) of *Materials* of MDPI, titled "Variable Stiffness Composite Materials and Structures", addresses advances in variable stiffness structures, where variable stiffness is achieved by means of curvilinear fibers, variable fiber volume content, variable thickness, or any combination thereof. Studies investigating variable stiffness metallic structures for lightweight applications are also welcome. Investigations into the fatigue and damage tolerance (FDT) of variable stiffness composite structures are extremely welcome, given the relative reduced number of studies in this direction. How does the FDT behavior of variable stiffness composites compare to traditional ones? How is the FDT behavior affected by design parameters? How does a crack initiate and propagate in variable stiffness composites? These are examples of research questions this SI is aiming at. Other topics that are welcome in this SI are novel and robust computational models that accurately describe the behavior of variable stiffness composite materials, including the presence of gaps and overlaps, when applicable; and new or improved manufacturing techniques.

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Message from the Editor-in-Chief

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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