Special Issue

On the Residual Strength and Damage Identification of Damaged Composite Structure

Message from the Guest Editors

In recent years, composites have been used in many industrial applications due to their excellent strength, weight, and durability characteristics. However, some negative aspects still limit their use. The most important issues in the structural behavior of all composites are some of their dynamic characteristics due to their lightweight superstructure, failure mechanisms, susceptibility to environmental conditions (e.g., humidity), susceptibility to undetectable defects due to the manufacturing process, and damages caused by accidental loads, which lead the current design practice being based on a damage tolerance approach.

This Special Issue is dedicated to publishing papers in all fields related to composite materials that address recent advances in the research and development of the materials. The key focus is on fiber-reinforced composite materials and particle-reinforced composite materials, addressing not only just the usual topics on structural/mechanical properties, but also more novel areas such as intelligent materials, sensing applications, extreme environment applications, and sustainability areas, such as recyclability and repair strategies, etc.

Guest Editors Dr. Alessandro De Luca

Dr. Michele Guida

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Deadline for manuscript submissions closed (20 July 2025)



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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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