# **Special Issue**

# Multiscale Reliability Analysis of Stiffened Composites

# Message from the Guest Editors

Stiffened composites have excellent damage tolerance, outstanding structural efficiency, and good design ability, which are widely used to load bearing structures in aerospace. With the improvement of equipment performance, the reliability of stiffened composites is increasingly becoming a topic of concern. Because of the complexity of stiffened composite design and the diversity of composite materials, its failure mechanism is very complex, and its reliability analysis is faced with great challenges. Therefore, we need to carry out multiscale failure mechanism research, from microscopic parameters to the macroscopic mechanical properties, and quantify the uncertain factors of design, molding, machining, and assembly for stiffened composites, and then develop multiscale reliability analysis methods to improve the reliability of stiffened composites. This Special Issue will focus on the failure behaviors and mechanical properties of stiffened composites and the reliability analysis model considering the mesoscopic and macroscopic parameters. Submissions of original research articles, review articles, and case studies are all welcome.

### **Guest Editors**

Dr. Feng Zhang

Dr. Guijie Li

Dr. Shouyi Sun

# Deadline for manuscript submissions

closed (31 December 2023)



an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed



mdpi.com/si/118196

Materials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
materials@mdpi.com

mdpi.com/journal/materials





an Open Access Journal by MDPI

Impact Factor 3.2 CiteScore 6.4 Indexed in PubMed





# **About the Journal**

# 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.

#### Editor-in-Chief

Prof. Dr. Maryam Tabrizian

 Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
 Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

# **Author Benefits**

#### Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

# **High Visibility:**

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

#### **Journal Rank:**

JCR - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Condensed Matter Physics)