Special Issue

Advanced Composite Materials and Structures: New Trends and Perspectives

Message from the Guest Editor

The development of advanced composite materials and structures is crucial for industries such as aerospace, automotives, and construction due to the excellent strength-to-weight ratio, corrosion resistance, anti-fatigue properties, and design flexibility. With the advancement of additive manufacturing technology, high-performance fiber-reinforced composites, intelligent monitoring, and multiscale simulation technologies, the demand for innovative solutions to improve the mechanical properties, manufacturing efficiency, and long-term performance of composites is growing. The application of machine learning and data analytics also provides new methods for optimizing material design and performance prediction, further driving the use of composite materials and structures. This Special Issue aims to publish papers which study fabrication and experimental techniques, simulation methods, and data-driven approaches for advanced composite materials and structures; we also welcome papers that contribute to improving understanding of the mechanical and failure behaviors of advanced composites and to enhancing the performance and reliability of composite structures in practical applications.

Guest Editor

Prof. Dr. Kai Huang
Department of Astronautic Science and Mechanics, Harbin Institute of Technology, Harbin 150001, China

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

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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.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

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