

Special Issue

Mechanics and Manufacturing of Advanced Composite Materials and Structures

Message from the Guest Editor

This Special Issue aims to highlight the latest advances in the mechanics, processing, and characterization of advanced composite materials for high-performance applications across aerospace, automotive, energy, biomedical, and other sectors. Potential submissions may include various composite manufacturing techniques, mechanical behavior, testing, characterization, damage models, and multiscale modeling. Topics of interest include, but are not limited to, the following:

- Experimental and computational mechanics of composite materials
- Fracture and failure analysis of composite structures
- Emerging composites, including nanocomposites and functionally graded composites
- Novel manufacturing techniques, including additive and hybrid manufacturing
- Process–structure–property relationship
- Composites for high-temperature applications
- Automated fiber placement
- Robot-assisted additive manufacturing of fiber-reinforced thermoplastic and thermoset polymers
- Sustainable and recycled composite materials
- Modeling and simulation at different length scales, including multiscale modeling
- AI/ML in composites
- High-throughput and autonomous manufacturing approaches

Guest Editor

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About the Journal

Message from the Editor-in-Chief

Journal of Manufacturing and Materials Processing (JMMP) (ISSN 2504-4494) is a new MDPI peer-reviewed, open access venue with a focus on the scientific fundamentals and engineering methodologies of manufacturing and materials processing. We offer an online platform facilitating effective exchange of innovative scientific and engineering ideas and the dissemination of recent, original, and significant research and developmental findings. On behalf of the Editorial Board, I extend an invitation to our scientific and engineering colleagues to contribute high-quality, innovative, and ground-breaking research articles to *JMMP*.

Editor-in-Chief

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