



## Advanced Polymer-Matrix Composite and 3D Printed Materials

Guest Editors:

### Dr. Sergio Horta Muñoz

Escuela de Ingeniería Industrial y Aeroespacial de Toledo, Instituto de Investigación Aplicada a la Industria Aeronáutica (INAI), Departamento de Mecánica Aplicada e Ingeniería de Proyectos, Universidad de Castilla-La Mancha, Av. Carlos III, Campus Fábrica de Armas, 45004 Toledo, Spain

### Dr. Evangelos Z. Kordatos

Department of Engineering and Mathematics, Sheffield Hallam University, Sheffield S1 1WB, UK

Deadline for manuscript submissions:

**10 January 2025**

### Message from the Guest Editors

In this Special Issue, we aim to explore the latest developments in the processing, characterization and utilization of advanced polymer matrix composites and 3D printed materials, with a focus on enhancing the mechanical performance of these materials. By critically evaluating the current 3D printing technologies, including the development and optimizations made to the printing methods, as well as the printed objects, we hope to gain a comprehensive understanding of the factors that influence the quality and mechanical performances of 3D printed parts. Particular emphasis is placed on damage and failure. Topics of interest include, but are not limited to, the following:

- Unreinforced and reinforced polymer matrix materials.
- Multi-scale simulation of damage and failure.
- Novel experimental techniques for characterization of mechanical properties.
- Advanced processing techniques for improving mechanical properties.
- Development and characterization of new materials.
- Optimization techniques for improvement of mechanical characteristics.
- Industrial applications of polymer matrix composites and 3D printed structures.





an Open Access Journal by MDPI

## Editor-in-Chief

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

## Message from the Editor-in-Chief

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.

## 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), Inspec, CAPlus / SciFinder, and other databases.

**Journal Rank:** JCR - Q1 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)

## Contact Us

---

*Applied Sciences* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/applsci](http://mdpi.com/journal/applsci)  
[applsci@mdpi.com](mailto:applsci@mdpi.com)  
[X@Applsci](#)