



Modelling and Applications for Additive Manufacturing

Guest Editor:

**Dr. Emmanouil Lazaros
Papazoglou**

Laboratory of Manufacturing
Technology, School of
Mechanical Engineering, National
Technical University of Athens,
15780 Athens, Greece

Deadline for manuscript
submissions:
20 October 2024

Message from the Guest Editor

Additive Manufacturing (AM) represents a revolutionary approach to manufacturing, offering unparalleled flexibility in the design and fabrication of parts and components. Contrary to being a single method, AM encompasses a range of methods based on the common principle of layer-by-layer fabrication from a computer-aided design (CAD). However, as a relatively nascent field, AM presents a host of challenges alongside its numerous opportunities and capabilities.

The SI will welcome articles exploring novel design concepts and lightweighting strategies to enhance both design efficiency and part functionality. Another area of keen interest is the development of numerical and analytical methods for modeling and simulating AM processes. Robust and consistent modeling and simulation are crucial for deepening our understanding of the underlying physical mechanisms governing AM processes. Through the use of these models and meta-models, further process optimization and advancements can be realized.

It is my great pleasure to invite everyone to submit a manuscript for this *Special Issue*.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada

2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

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.

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

Contact Us

Materials Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/materials
materials@mdpi.com
[X@Materials_Mdpi](https://twitter.com/Materials_Mdpi)