## Special Issue

## Advances in Solid Mechanics and Its Applications

## Message from the Guest Editors

One of the main challenges in solid mechanics is to describe the mechanical behavior of materials, whether under static/quasi-static or dynamic conditions. Major industries, such as aerospace, aviation, naval, automotive, and oil and gas extraction, among others. apply the concepts developed in this field of mechanics to design and operate machines, structures, and components. Thus, this "Special Issue" aims to showcase the advances achieved in the study of ductile fracture, material fatigue, fracture mechanics, the characterization of materials from additive manufacturing, the use of AI for manufacturing process optimization, wear and balance of cutting tools, the application of the finite element method to solve nonlinear problems in solid mechanics, and mechanical vibrations.

## **Guest Editors**

Prof. Dr. Lucival Malcher

 Department of Mechanical Engineering, Faculty of Technology, University of Brasília, Campus Darcy Ribeiro, Brasília 70910-900, Brazil
 INEGI - Institute of Science and Innovation in Mechanical and Industrial Engineering, University of Porto, Campus da FEUP, 4200-465 Porto, Portugal

Prof. Dr. Fábio Comes Castro

Department of Mechanical Engineering, University of Brasilia, Brasilia 70910-900, Brazil

### Deadline for manuscript submissions

closed (10 October 2025)



# Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.5



mdpi.com/si/214801

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

mdpi.com/journal/applsci





## Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.5



## **About the Journal**

## 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.

## **Editor-in-Chief**

Prof. Dr. Giulio Nicola Cerullo

Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

## **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), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)

