

## Special Issue

# New Advances in Acoustic Materials: Design and Application

### Message from the Guest Editor

This Special Issue focuses on their design principles and diverse applications across various industries. The topics covered in this Special Issue include:

**Smart Materials for Acoustic Control:** Investigating the integration of smart materials, such as metamaterials and shape-memory alloys, in acoustic material design for the enhanced control and manipulation of sound waves.

**Bio-inspired and Sustainable Acoustic Materials:** Exploring nature-inspired materials, such as biomimetic structures and materials, that mimic natural sound absorption and diffusion mechanisms.

**Nanotechnology in Acoustic Materials:** Examining nanotechnology's role in the development of acoustic materials with unique properties.

**Multifunctional Acoustic Materials:** Discussing the design and application of materials that serve multiple functions, such as combining acoustic insulation with thermal properties or incorporating energy-harvesting capabilities.

**3D Printing and Acoustic Materials:** Analyzing the impact of 3D printing technologies on the customization and fabrication of acoustic materials.

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### Guest Editor

Prof. Dr. Massimo Viscardi

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### Deadline for manuscript submissions

closed (20 October 2025)



## Applied Sciences

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## 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.

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### Editor-in-Chief

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