Special Issue

Advances in Metamaterials for Sound and Vibration Control

Message from the Guest Editors

Wide technical possibilities are opened by the design of new metamaterials in sound and vibration control. Via the designed metamaterials, flexible manipulations of acoustic and elastic waves have been achieved, such as cloaking, beaming, diffusing, illusion, and holograms. Fascinating applications, such as high-speed analog computing, ultrasensitive detection, efficient waveguiding, low-frequency sound absorption, acoustic sensing, vibration isolation, vibration identification, and vibration energy harvesting, have been demonstrated in recent years. With the new development of topological metamaterials, origami metamaterials, programmable metamaterials, random metamaterials, active metamaterials, four-dimensional metamaterials, a lot of new exciting studies will emerge in the area of sound and vibration control in the future. We would like to invite researchers to contribute original research papers as well as review papers for this Special Issue which aims to serve as a research milestone that summarizes the most recent progress in the field of metamaterials for sound and vibration control.

Guest Editors

Prof. Dr. Qingbo He

Prof. Dr. Tianzhi Yang

Prof. Dr. Baizhan Xia

Dr. Tianxi Jiang

Deadline for manuscript submissions

closed (30 June 2022)



Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.3



mdpi.com/si/66672

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

mdpi.com/journal/ applsci





Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.3



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

Journal Rank:

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

