# Special Issue

# Advances in Elastic Micro-Structured Systems and Metamaterials

### Message from the Guest Editor

The interest in elastic media with engineered micro-structures has recently exploded due to the unique characteristics that can be achieved by a clever arrangement of the micro-components. Artificially designed composite materials are generally referred to as metamaterials, since they possess extraordinary properties that can rarely be found in nature. The aim of this Special Issue is to gather novel concepts and advanced results in the design and implementation of elastic micro-structured media exhibiting unconventional properties. The focus is on dynamic phenomena associated with propagation of elastic waves in discrete and continuous periodic structures. Special attention is also given to chiral systems and auxetic materials. We invite prospective authors to submit high-quality papers discussing current cutting-edge research topics, such as wave polarization and localization, filtering, eigenfrequency manipulation, generation of negative effective material parameters, dynamic crack propagation, and topological protection. Analytical, numerical, and experimental works are welcome.

- Micro-structured systems
- Elastic metamaterials
- Dynamic fracture
- Vibration control

### Guest Editor

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### Deadline for manuscript submissions

closed (30 August 2022)

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## 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

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