# Special Issue

# Nature-Inspired Mechanical Metamaterials

### Message from the Guest Editors

In recent years, phononic crystals and elastic metamaterials have provided new opportunities for wave control and a wealth of applications have been proposed in acoustics and vibration control. In parallel, the development of elastic metamaterials has also lead to lightweight microstructured designs exhibiting exceptional quasistatic mechanical properties.

Bioinspiration has already enabled the design of structures with optimized mechanical properties such as strength or toughness. Since metamaterials derive their unconventional behaviour from structure rather than from material properties, biological systems are ideal candidates as a source of inspiration.

This Special Issues welcomes contributions related to the mechanics of Bioinspired metamaterials, both for the control of wave propagation and for the achievement of unconventional quasistatic properties, at various size scales and in various engineering fields. Submissions are expected related to investigations on analytical and numerical approaches for novel optimized bioinspired designs, as well as their fabrication and experimental verification.

### Guest Editors

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### Deadline for manuscript submissions

closed (31 January 2022)

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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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