Special Issue

Designing and Manufacturing Hard and Soft Mechanical Metamaterials

Message from the Guest Editor

Mechanical metamaterials are rationally designed materials composed of periodically repeating elements that are engineered to present exotic properties that cannot be found in nature. The apparent properties of mechanical metamaterials have a stronger dependency on their microgeometrical features rather than the base material they are made of.

Recent advancements in manufacturing technologies including additive manufacturing, lithography techniques, macro-, micro-, and nanofabrication techniques, and new material developments have enabled manufacturing of many new types of mechanical metamaterials with advanced functionalities and attractive properties never seen before.

This Special Issue explores the latest advances in designing and manufacturing of such functional structures made of metals, polymers, ceramics, etc. Such metamaterials can be either passive (keep their shape during their application) or active (change their shape upon request by the user).

Guest Editor

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Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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