Special Issue

Design and Fabrication of Lattice and Architectured Materials via Metal Additive Manufacturing

Message from the Guest Editors

Additive Manufacturing (AM) has revolutionized the fabrication of complex structures by utilizing a layer-by-layer approach, unlocking the potential of lattice and architectured materials with digitally controlled meso- or microscale structures. This Special Issue is dedicated to exploring the latest developments in the design and fabrication of lattice and architectured materials through metal AM. Research areas may include (but are not limited to) the following:

- Design and optimization of AM-fabricated metal lattice and architectured materials;
- Process planning for AM-fabricated metal lattice and architectured materials;
- AI or data-driven design and process planning for metal lattice and architectured materials;
- Process–structure–properties or performance modelling of AM-fabricated metal lattice and architectured materials;
- Bio-inspired design of metal lattice and architectured metal materials;
- Novel additive or hybrid manufacturing processes of metal architectured materials;
- Computational or generative designs of metal lattice and architectured materials;
- Applications of AM-fabricated metal lattice and architectured materials.

Guest Editors

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Deadline for manuscript submissions

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About the Journal

Message from the Editorial Board

Metallic materials play a vital role in the economic life of modern societies; contributions are sought on fresh developments that enhance our understanding of the fundamental aspects related to the relationships between processing, properties and microstructure – disciplines in the metallurgical field ranging from processing, mechanical behavior, phase transitions and microstructural evolution, nanostructures, as well as unique metallic properties – inspire general and scholarly interest among the scientific community.

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