Special Issue

Modelling and Applications for Additive Manufacturing

Message from the Guest Editor

Additive Manufacturing (AM) represents a revolutionary approach to manufacturing, offering unparalleled flexibility in the design and fabrication of parts and components. Contrary to being a single method, AM encompasses a range of methods based on the common principle of layer-by-layer fabrication from a computer-aided design (CAD). However, as a relatively nascent field, AM presents a host of challenges alongside its numerous opportunities and capabilities. The SI will welcome articles exploring novel design concepts and lightweighting strategies to enhance both design efficiency and part functionality. Another area of keen interest is the development of numerical and analytical methods for modeling and simulating AM processes. Robust and consistent modeling and simulation are crucial for deepening our understanding of the underlying physical mechanisms governing AM processes. Through the use of these models and meta-models, further process optimization and advancements can be realized. It is my great pleasure to invite everyone to submit a manuscript for this Special Issue.

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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