Special Issue

Metal Additive Manufacturing by Selective Laser Melting

Message from the Guest Editors

Selective Laser Melting (SLM), also referred to as laser powder bed fusion, constitutes a revolutionary technique for producing intricate metal components. This method provides exceptional design flexibility and efficient material utilization, making it increasingly prevalent in aerospace, biomedical, and automotive industries.In this Special Issue, we aim to comprehensively review recent advancements, unresolved challenges, and emerging opportunities associated with SLM technology. We will delve into the fundamental principles and practical applications of SLM from multidisciplinary perspectives, including materials science, laser-material interactions, in situ monitoring and process engineering. Particular emphasis will be placed on experimental investigations, data-driven approaches and numerical simulations aimed at enhancing the mechanical properties, wear resistance, corrosion resistance, microstructure control and overall forming quality of manufactured parts. Additionally, contributions addressing post-processing techniques to refine the surface characteristics or improve the part functionality of additively manufactured components are also highly encouraged.

Guest Editors

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Message from the Editor-in-Chief

Journal of Manufacturing and Materials Processing (*JMMP*)(ISSN 2504-4494) is a new MDPI peer-reviewed, open access venue with a focus on the scientific fundamentals and engineering methodologies of manufacturing and materials processing. We offer an online platform facilitating effective exchange of innovative scientific and engineering ideas and the dissemination of recent, original, and significant research and developmental findings. On behalf of the Editorial Board, I extend an invitation to our scientific and engineering colleagues to contribute high-quality, innovative, and ground-breaking research articles to *JMMP.*

Editor-in-Chief

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