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Advances in Physical Metallurgy of Additively Manufactured Alloys

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Deadline for manuscript submissions:

20 December 2024

Message from the Guest Editors

Dear Colleagues,

We seek submissions that delve into the microstructure–property–processing relationship in metals and alloys manufactured through various AM technologies, encompassing various materials from nickel and titanium alloys to steel and high-entropy alloys. Powder bed fusion, direct metal deposition, and cold spray additive manufacturing are among the targeted technologies. Contributions examining microstructural characterisation after various post-treatments are encouraged. This interdisciplinary endeavour aims to bridge the gap between traditional physical metallurgy and the unique challenges posed by AM by addressing barriers like material selection, consistency, repeatability, accuracy, and post-processing requirements in AM.

This Special Issue aims to accelerate the development of AM-manufactured alloys for various industries, including aerospace, automotive, maritime, and biomedical. Full papers, short communications, case studies, and reviews advancing our understanding and application of physical metallurgy in additive manufacturing are welcomed.

I look forward to receiving your contributions.

Dr. Andrew Breen

Dr. Vitor Rielli

Guest Editors



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Special Issue



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Editor-in-Chief

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Message from the Editor-in-Chief

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