Special Issue

Wire Arc Additive Manufacturing of Metallic Components

Message from the Guest Editors

Wire arc-based additive manufacturing (WAAM) has been a very active field of research in the last few decades. A key feature of WAAM is its ability to fabricate large scale metallic components at relatively high deposition rates, yet at low equipment costs. This Special Issue “Wire Arc Additive Manufacturing (WAAM) of metallic materials” intends to collect the latest developments in this field by well-known authors who have contributed significantly in the development, design and process improvements for producing metallurgically sound, defect-free, metallic components via WAAM. Metallic components may include, but are not limited to, Ni-based alloys, Al-based alloys, ferrous alloys, intermetallic systems and high entropy alloys. Topics addressed in the Special Issue may include, but are not limited to:

- Process development
- Path Planning, design and programming
- Process modeling
- Online control/process monitoring
- Industrial applications
- Robotic WAAM systems
- Metallurgical characterization
- Large-scale metallic components

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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manuscripts are peer-reviewed and a first decision is provided to authors approximately 18 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the first half of 2025).

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