

Special Issue

The Physics of Joining and Additive Manufacturing

Message from the Guest Editors

The development, control, monitoring, and optimisation of advanced joining and additive manufacturing rely on our understanding of the involved physical phenomena. Similarly, the deposition of materials to form (near) net shapes requires a deep understanding of the processes and materials in order to control shape and properties. The properties of materials depend on their composition and thermal-mechanical history. Microstructures and properties can be affected by processing. The comprehensive scope of this Special Issue includes all physical aspects of advanced joining and additive manufacturing processes of all materials. It aims at collating aspects of applied physics, engineering, materials science, and chemistry, which are crucial for the development of efficient and cost-effective joining and additive manufacturing technologies. The categories of manuscript types that will be considered for publication include full-length original research articles, short communications, reviews, and perspectives. Manuscripts submitted to this Special Issue should contain new insights into the relationship between the processing, structure, and properties of materials.

Guest Editors

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Dr. Marcel J.M. Hermans

Dr. Vera Popovich

Deadline for manuscript submissions

closed (30 September 2023)



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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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