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New Perspectives in Welding and Joining Processes of Metallic Materials

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Message from the Guest Editors

In all fields of main engineering applications, welding and joining techniques for metallic components play a key role in ensuring the required performance, quality and safety in service. Given the vast and diverse range of requirements and functions to be satisfied, investigations into the compatibility and weldability of materials, and in the metallurgical effects of joining processes parameters on their final microstructure and properties, are an essential phase in selecting and setting the most efficient joining processes. The Special Issue aims to provide an overview on recent advances in welding and joining processes of metallic materials. Topics of interest include, but are not limited to:

- Modelling and simulation of welding and joining processes;
- Metallurgical phenomena in joining processes;
- Heat source–material interaction mechanism;
- Weldability and metallurgical compatibility of materials;
- Microstructure, properties and behaviour of metal alloys;
- Welding and joining parameters and optimization;
- Post-weld treatments;
- Developments of advanced welding and joining processes;
- Environmental impact and sustainability of welding and joining processes;



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Special Issue



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Message from the Editor-in-Chief

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