# Special Issue

# Casting and Electromagnetic Treatment of Steel and Metals: Modeling and Simulation

## Message from the Guest Editors

This Special Issue is dedicated to exploring the application of advanced modeling and experimental techniques in order to enhance the casting and electromagnetic treatment processes within the steel and metal industries. Computational fluid dynamics is employed as a powerful tool for simulating the casting process and investigating the impact of electromagnetic fields. Moreover, the influence of electromagnetic treatment on the solidification behavior and microstructure of various metals and alloys is a key focus of this Special Issue. An important aspect highlighted in this Special Issue is the integration of modeling and simulation techniques with optimization algorithms, which allows for the development of more efficient casting processes. Researchers present innovative strategies for optimizing process parameters, such as cooling conditions and electromagnetic field parameters, with the ultimate goal of achieving improved casting quality and productivity. This Special Issue aims to provide a comprehensive overview of the latest advancements in the modeling and simulation of casting and electromagnetic treatment processes.

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## Deadline for manuscript submissions

closed (20 January 2024)

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## Message from the Editor-in-Chief

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