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Recent Advances and Applications of Machine Learning in Metal Forming Processes

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Deadline for manuscript submissions:
closed (30 June 2022)

Message from the Guest Editors

Dear Colleagues,

Machine learning (ML) technologies are emerging in Mechanical Engineering, driven by the increasing availability of datasets, coupled with the exponential growth in computer performance. In fact, there has been a growing interest in evaluating the capabilities of ML algorithms to approach topics related to metal forming processes, such as:

- Classification, detection and prediction of forming defects;
- Material parameters identification;
- Material modelling;
- Process classification and selection;
- Process design and optimization.

The purpose of this Special Issue is to disseminate state-of-the-art ML applications in metal forming processes. Contributions in the form of full papers, reviews, and communications about the abovementioned and related topics are very welcome.

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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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