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# New Trends and Advances in Metal Casting

Guest Editors:

### Message from the Guest Editors

Dr. Marcela Pokusová

Dr. Peter Futáš

Prof. Dr. Alena Pribulová

Dr. Marcin Brzeziński

Deadline for manuscript submissions: **20 July 2024** 

Dear Colleagues,

Modern metal casting is much more than the simple act of pouring liquid metal into a mould. It is a dynamic industry that can flexibly adopt the latest advancements in material and technological research. This ability enables metal casting to respond to the diverse demands of various industries. Innovations in casting processes have led to enhanced quality and accuracy in castings and production efficiency. The integration of 3D-printing technologies in the production of patterns, moulds, and cores has enabled hybrid and multi-material castings, as well as castings with topologically optimized designs. Utilizing advanced simulation technologies in the design and development of castings and casting processes enables engineers to optimize the casting design, predict the defects and properties of castings, and virtually test and optimize the parameters of casting processes, resulting in improvements in the quality of castings (defect-free castings), cost savings, and reduced lead times. Additionally, sustainable technologies are introduced in modern metal casting production.



mdpi.com/si/195366







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## **Editor-in-Chief**

#### Message from the Editor-in-Chief

**Prof. Dr. Giulio Nicola Cerullo** Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy 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.

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*Applied Sciences* Editorial Office MDPI, St. Alban-Anlage 66 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/applsci applsci@mdpi.com X@Applsci