

## Special Issue

# Symmetry and Additive Manufacturing: Applications in Mechanical Engineering

### Message from the Guest Editors

3D printing, or additive manufacturing (AM), as one of the most popular technologies for mechanical manufacturing, known for producing components with diverse geometries using mathematical and volumetric techniques, grounded in multidisciplinary knowledge. However, further research is required for its transition from prototyping to full-scale production under strict metallurgical and mechanical controls. Machine learning—such as image and speech recognition, natural language processing, recommendation systems, classification, and prediction—can drive major advances in metal AM. Topology optimization linked to build orientation affects time, cost, and process planning, and directly influences the multidisciplinary effects related to symmetry.

This Special Issue aims to provide a platform for research carried out in different areas to contribute decisively to the development of this revolutionary mechanical manufacturing technique. We invite researchers to submit their original research articles, reviews, and short communications related to the topics mentioned here.

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### Guest Editors

Prof. Dr. Jorge Luiz Braz Medeiros

School of Engineering, Universidade Federal do Rio Grande—FURG, Rio Grande 96203-900, RS, Brazil

Prof. Dr. José D. Souza

Department of Research and Industrial Production, Liberato Salzano Vieira da Cunha Technical School Foundation, Inconfidente, 395, Novo Hamburgo, RS, Brazil

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### Deadline for manuscript submissions

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## Symmetry

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*Symmetry*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[symmetry@mdpi.com](mailto:symmetry@mdpi.com)

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## About the Journal

### Message from the Editor-in-Chief

Symmetry is ultimately the most important concept in natural sciences. It is not surprising then that very basic and fundamental research achievements are related to symmetry. For instance, the Nobel Prize in Physics 1979 (Glashow, Salam, Weinberg) was received for a unified symmetry description of electromagnetic and weak interactions, while the Nobel Prize in Physics 2008 (Nambu, Kobayashi, Maskawa) was received for the discovery of the mechanism of spontaneous breaking of symmetry, including CP symmetry. Our journal is named *Symmetry* and it manifests its fundamental role in nature.

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### Editor-in-Chief

Prof. Dr. Sergei Odintsov

1. ICREA, 08010 Barcelona, Spain

2. Institute of Space Sciences (IEEC-CSIC), C. Can Magrans s/n, 08193 Barcelona, Spain

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