

Special Issue

Symmetry and Asymmetry Principles in Latest Advances and Prospects of the Materials Science and Engineering

Message from the Guest Editor

Symmetry is one of the science fields that links nature and engineering. This field allows you to deeply study the natural processes and structures of materials and then use them highly efficiently in inventive activities in engineering and materials science. It is estimated that around 70 percent of all technical innovations depend directly or indirectly on materials. Materials science and engineering constitute a particularly interdisciplinary and heterogeneous scientific field. It is important to pay attention to the balance between symmetries and asymmetries; their analysis, combination and skillful use will enable perspective, high-quality designs and technologies. This Special Issue is devoted to the development of new perspective constructions and materials, the assessment of their quality and the effectiveness of their application in practice. In addition, the Special Issue will accept work to modernize existing systems and technologies using innovative methods such as the principles of symmetry, decision theory and systems approach. Particular attention is paid to interdisciplinary research with results at the intersection of sciences.

Guest Editor

Dr. Kateryna Kravchenko

Faculty of Mechanical Engineering, University of Zilina, Univerzitná 8215/1, 010 26 Žilina, Slovakia

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Symmetry
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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.

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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