Special Issue

Symmetry/Asymmetry in Metamaterials

Message from the Guest Editors

This Special Issue explores the fascinating and evolving roles of symmetry and asymmetry in the design and behavior of metamaterials. Metamaterials, engineered to possess unique properties not found in natural materials, rely heavily on their structural geometry and material composition to achieve extraordinary physical effects, such as negative refraction, cloaking, and advanced wave manipulation. This Special Issue brings together cutting-edge research that examines the theoretical foundations, practical implementations, and potential applications of both symmetric and asymmetric metamaterials. Contributions address the latest advances in metamaterial design, including novel fabrication techniques, optimization methods, and computational models, as well as their integration into real-world systems. Topics of interest include but are not limited to the design of novel metamaterial structures, the manipulation of wave propagation through symmetry-breaking techniques, and the development of new materials that exploit these effects for practical engineering solutions.

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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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