Special Issue

Application of Symmetry in Quantum Materials and Quantum Devices

Message from the Guest Editor

Quantum materials and quantum devices play a pivotal role in implementing quantum science and technology as they provide the fundamental hardware playground for quantum computations, quantum communications, quantum measurement, etc. In the past twenty years, tremendous progress and exciting achievements have been made in the field of quantum materials and quantum devices, including the discovery of exotic topological quantum states of matter and novel superconductivity, as well as the combination of the two. The formation of these exotic quantum states is closely related to the presence or lack of certain symmetries in the system. In this Special Issue, we aim to report the recent theoretical and experimental advancements in this rapidly developing field of quantum materials and quantum devices. Both original and the review articles are welcome.

Guest Editor

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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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