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Quantum Optics and Symmetry

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Message from the Guest Editors

Dear Colleagues,

Quantum optics studies individual quanta of light. In this Special Issue, we call for research in the areas of quantum mechanics including entanglement and teleportation, quantum memory, and quantum information processing. Quantum imaging and quantum neural networks for learning-based image recognition are also of interest in this special issue. Quantum optical encryption, quantum nano-optics, and quantum optical information processing are particularly welcomed.

Quantum symmetry is also a topic of interest in this Special Issue, as well as group theory and symmetry of quantum electrodynamics. New insights connecting symmetry and quantum mechanics are especially welcomed.

Dr. Hongbo Zhang Prof. Dr. Aimin Yan *Guest Editors*



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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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