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## Particle Accelerators: Theory, Methods and Applications

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Deadline for manuscript  
submissions:

**closed (31 May 2024)**

### Message from the Guest Editor

Dear Colleagues,

Particle accelerators, devices that produce beams of charged particles that can be used for a variety of research purposes, are indispensable research tools in nuclear physics, high-energy physics, condensed matter physics, medical science and materials science. It is well known that the Large Hadron Collider (LHC) is the largest currently active accelerator. In recent decades, the development of advanced accelerator technologies and their applications have been remarkable. Symmetries are at the core of many aspects of fundamental physics. Hereby, the goal of this Special Issue in *Symmetry* is to cover a broad range of topics on the fast-developing technology in particle accelerators from both theory and application angles.



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# Special Issue



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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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