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# Symmetry with Chiral Magnetic Effects and Chiral Transports

Guest Editor:

#### Prof. Dr. Shi Pu

Department of Modern Physics, University of Science and Technology of China, Hefei 230026, China

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### Message from the Guest Editor

Dear Colleagues,

Recently, chiral magnetic effects have drawn a great deal of attention in relativistic heavy ion collisions as a possible way to detect the P and CP violation of strong interaction. Chiral magnetic effects and many related topics, e.g., the novel chiral transports, chiral magnetic waves, and chiral kinetic theory, etc., have been widely studied from theoretical and experimental sides. The applications of those chiral phenomena have also extended to astrophysics and condensate matter physics. However, it is still challenging to get a clear signal of P and CP violation of strong interaction through chiral magnetic effects in relativistic heavy ion collisions due to the contributions from background interference. Therefore, new strategies, methods, and possible applications are urgently needed. This Special Issue is aimed at providing selected reviews on current developments related to chiral phenomena and selected contributions on the new strategies and methods.









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### **Editor-in-Chief**

#### Prof. Dr. Sergei D. Odintsov

 Institució Catalana de Recerca i Estudis Avançats (ICREA), Passeig Luis Companys, 23, 08010 Barcelona, Spain
Institute of Space Sciences (ICE-CSIC), C. Can Magrans s/n, 08193 Barcelona, Spain

### 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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*Symmetry* Editorial Office MDPI, St. Alban-Anlage 66 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/symmetry symmetry@mdpi.com X@Symmetry\_MDPI