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# Advances on Chiral Symmetry and Its Restoration

Guest Editors:

### Message from the Guest Editors

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Deadline for manuscript submissions: closed (28 March 2022) the restoration of chiral symmetry under external conditions, like those of temperature and chemical potentials achieved in relativistic heavy-ion collisions, has become a key ingredient to understand properly the phase diagram of quantum chromodynamics. Substantial advances in this direction have come from lattice simulations of thermodynamics and fluctuations, theoretical developments, and experiments at various facilities, such as RHIC at BNL, LHC at CERN, or GSI-FAIR at Darmstadt, which have significantly improved our knowledge of the phase diagram. Open problems such as the existence and properties of a critical point or the nature of the transition still challenge theoretical approaches and offer interesting lines of research for the near future.









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

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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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