



Recent Advances in High-Energy Physics: QCD from Heavy-Ion to Electron-Ion Colliders

Guest Editor:

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Deadline for manuscript
submissions:

closed (31 July 2024)

Message from the Guest Editor

Dear Colleagues,

Heavy-ion physics has been at the forefront of high-energy nuclear physics for the past two decades. The Relativistic Heavy-Ion Collider (RHIC) began collecting data in 2000 with the primary goal of discovering quark–gluon plasma, theorized to exist since the mid-1970s... Hagedorn's maximum limiting temperature was reinterpreted as a second-order phase transition by Nicola Cabibbo and Giorgio Parisi in 1975, and the discussion officially began of a new state of matter where quarks and gluons were deconfined...

This Special Issue invites the submission of papers which review and assess the challenges of quantum chromodynamics from heavy-ion to electron-ion colliders. All original papers considering this area of high-energy nuclear physics (experimental and theoretical) are invited for submission. The topics of interest of the Special Issue include, but are not limited to, the following:

- heavy-ion collisions;
- electron-ion collisions;
- quark-gluon plasma;
- quantum chromodynamics.

Dr. Krista Lizbeth Smith

Guest Editor





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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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