

# Special Issue

## Relativistic Heavy-Ion Collisions: Theory and Observation

### Message from the Guest Editors

Relativistic heavy-ion collisions, or sometimes called little bangs, are an essential tool in exploring the properties of strong-interacting quantum chromodynamics (QCD) matter and evolution of the early Universe. Significant new physics phenomena have emerged over the past twenty years, including the study of the QCD phase diagram and the critical end point, chiral dynamics and spin polarization, jet physics, collective flows in bulk quark-gluon plasma (QGP) and small systems, correlation and particle production, etc. While experimental observations rely on the high-quality performance of beams and detectors, theoretical studies on the dynamics of relativistic heavy-ion collisions are largely based on transport and hydrodynamics approaches. This Special Issue highlights some of the above topics and may hopefully stimulate some new ideas in high-energy nuclear physics as well as in interdisciplinary research fields.

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### Guest Editors

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### Deadline for manuscript submissions

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## Universe

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## About the Journal

### Message from the Editor-in-Chief

The multidisciplinary journal *Universe* is aiming to follow and, hopefully, to lead to the largest extent as possible the ever-self renovating threads which weave mathematical theories with our understanding of the magnificent natural world. On behalf of all the distinguished members of the Advisory and Editorial Boards, I extend my welcome to this journal and look forward to hearing from the interested contributors and learning about their valuable research.

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### Editor-in-Chief

Prof. Dr. Lorenzo Iorio  
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