

Special Issue

Heavy-Ion Physics

Message from the Guest Editor

In heavy-ion collisions at high energy, a new state of matter, called Quark–Gluon Plasma (QGP), is produced. QGP is assumed to have been formed few millionths of seconds after the Big Bang, and therefore, studying heavy-ion collisions one can shed light on the Universe's evolution. Originally, theorists predicted that QGP behaved like a weakly interacting gas, but results at the relativistic heavy ion collider and at the large hadron collider (LHC) showed that it is instead a strongly coupled liquid. QGP properties in heavy-ion collisions are currently under study, and their understanding is crucial for a deep knowledge of quantum chromodynamics. Surprisingly enough, LHC experiments recently showed the presence of collective effects in high-energy hadron–hadron collisions, posing the question on the possibility of QGP formation also in small collision systems. Reviews of experimental results as well as new theoretical modelling ideas are welcome to be part of this Special Issue. Keywords

- heavy-ion collisions
- quark–gluon plasma
- strongly interacting matter
- quantum chromodynamics
- high-energy collisions
- LHC
- RHIC

Guest Editor

Dr. Valentina Zaccolo

Dipartimento di Fisica dell'Università and Sezione INFN, 34100 Trieste, Italy

Deadline for manuscript submissions

closed (15 June 2020)



Universe

an Open Access Journal
by MDPI

Impact Factor 2.6
CiteScore 5.2



mdpi.com/si/32085

Universe
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
universe@mdpi.com

[mdpi.com/journal/
universe](https://mdpi.com/journal/universe)





Universe

an Open Access Journal
by MDPI

Impact Factor 2.6
CiteScore 5.2



[mdpi.com/journal/
universe](https://mdpi.com/journal/universe)



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.

Editor-in-Chief

Prof. Dr. Lorenzo Iorio
Ministero dell' Istruzione e del Merito, Viale Unità di Italia 68, 70125 Bari,
Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Astrophysics Data System, INSPIRE, CAPIus / SciFinder, Inspec, and other databases.

Journal Rank:

JCR - Q2 (Astronomy and Astrophysics) / CiteScore - Q2 (General Physics and Astronomy)