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Investigating the Matter-Antimatter Asymmetry

Guest Editors:

Dr. Ricardo G. Landim

Institute of Cosmology and
Gravitation, University of
Portsmouth Dennis Sciana
Building, Portsmouth PO1 3FX,
UK

Prof. Dr. Marcelo M. Guzzo

Instituto de Física Gleb Wataghin,
UNICAMP, Campinas, SP, Brazil

Deadline for manuscript
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Message from the Guest Editors

Particles and antiparticles should have been created in equal amounts in the early Universe; however, the question of why there are more of the former than the latter is an open problem in cosmology. The conditions that produce the asymmetry, as first realized by Andrei Sakharov in 1967, are baryon number violation, violation of charge parity symmetry, and interactions out of equilibrium. Although thought initially only for baryons, a similar procedure should happen for leptons. Indeed, several mechanisms have been proposed to investigate both leptogenesis and baryogenesis. Since lepton and baryon number violations are not expected within the Standard Model, the asymmetry points towards new physics.

This Special Issue focuses on baryogenesis and leptogenesis in a broad context and you are kindly invited to submit both original research articles and review papers.



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Special Issue



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Editor-in-Chief

Prof. Dr. Lorenzo Iorio

Ministero dell'Istruzione e del Merito, Viale Unità di Italia 68, 70125 Bari, BA, Italy

Message from the Editor-in-Chief

The multidisciplinary *Universe* journal 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 editorial board, I extend my welcome to this new journal and look forward to hearing from the interested contributors and learning about their valuable research.

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Contact Us

Universe Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
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universe@mdpi.com
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