# **Special Issue**

# Frontiers in Numerical Precision: From Astrophysics to Cosmology

# Message from the Guest Editor

Studies of gravity theories lie at the interface of astrophysics, cosmology, nuclear physics, and collider physics. Constraining such theories entails the capability to compare predictions to a wide range of observations. In this line of thought, over the last 30 years, growing research areas, such as precision cosmology and astrophysics, have developed, where complex numerical methods and simulations to deal with Big Data observations are employed to construct viable solutions to the current issues at hand, evoking the consideration of new theories of gravity or exotic components at cosmic and local scales. Although much has been learned through these approaches, progress has guided us to a degeneracy of proposals. We invite our colleagues to contribute their papers to inform the scientific community of the advances made on these topics.

### **Guest Editor**

Prof. Dr. Celia Escamilla-Rivera

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### Deadline for manuscript submissions

closed (28 February 2023)



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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.

# Editor-in-Chief

Prof. Dr. Lorenzo Iorio

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