Special Issue

Primordial Black Holes from Inflation

Message from the Guest Editor

Primordial black holes (PBHs) are the most economical option for explaining dark matter (DM). If generated by large fluctuations of scalar primordial perturbations, a full explanation of DM in terms of PBHs only depends on a thorough understanding of inflation. Recently, constraints on the existence of PBHs were largely updated, leaving the intriguing possibility that the DM is entirely constituted by PBHs of sub-lunar masses. In this case, their abundance is intimately related to the inflationary evolution at sub-CMB scales. Thus, the discovery of those mini PBHs would also provide important information about the initial, inflationary, stages of our Universe. The last few years were also a theatre of intense theoretical activity that provided the foundations for precise predictions of PBH abundances.

The aim of this Special Issue is to collect the somewhat scattered literature of the last few years in a pedagogical and coherent book on the current knowledge of inflationary generated PBHs as DM.

Guest Editor

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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

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