Special Issue

Recent Advances and Current Trends in Gravitational Waves

Message from the Guest Editors

The search, detection, and characterization of gravitational waves (GW) with the network of earth-based laser interferometers LIGO, VIRGO, GEO, and KAGRA, and with the future network of detectors, such as the Einstein Telescope, Cosmic Explorer, and LISA, involves research in several fronts, such as theoretical and numerical solutions of the general relativity equations and novel computational tools and data analysis techniques. So far, only GW generated by binary black holes (BBH) and binary neutron stars (BNS) have been detected, however, there are still other undetected GW, such as those emitted by exotic sources as core-collapse supernovae (CCSNe) and gamma-ray bursts (GRB). GWs from CCSNe are a singular detection target in upcoming observing campaigns because their electromagnetic (EM) radiation and neutrino emission, along with the still unknown GW emission, will lead to new insights into the multi-messenger astronomy (MMA) and will reveal novel unexpected features of the Universe.

Guest Editors

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Deadline for manuscript submissions

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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

Prof. Dr. Lorenzo Iorio
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