Special Issue

Continuous Gravitational Waves

Message from the Guest Editors

Among the uppermost priorities of the gravitational-wave community, undetected feeble continuous gravitational waves (CWs) stand out, the detection of which is crucial for the comprehension of matter at extreme supranuclear densities and highly relativistic regimes. These signals are typically emitted by non-axisymmetric and rapidly rotating neutron stars (either isolated or in a binary system), but also by ultra-light boson clouds around spinning black holes (according to what has been recently and theoretically shown). Multiple efforts are currently ongoing to detect CW signals analyzing the most sensitive advanced LIGO-Virgo observation runs via both veteran searches and developing robust and deep-learning-based algorithms. This Special Issue aims to foster progress in the CW field. Interested colleagues are invited to submit research papers that can contribute to CW detection. This will allow us to shed light on diverse fundamental physics questions, supporting tests of general relativity (studying the polarization content of the gravitational signal) and possibly bringing to unexpected outcomes.

Guest Editors

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Deadline for manuscript submissions

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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

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