Special Issue

Role of Black Holes in Testing Modified Theories of Gravity

Message from the Guest Editor

In the past few years, the spectacular progress made in gravitational wave detection by LIGO/Virgo and shadow observations by the Event Horizon Telescope collaboration has shed light on the previously inaccessible horizon-scale physics. These observations are exciting, not only because of the results they confirm but also because they allow us to test our current understanding of gravitational theory in the strong-field and highly relativistic regimes, as well as probe any deviation from general relativity. Given the large number of modified theories to be tested, a more sophisticated approach would be to develop model-independent ways of testing gravity theory with electromagnetic/gravitational waves and to interpret astrophysical observables within a more general and bias-independent theoretical framework to uniquely determine the nature of the astrophysical black hole...

Guest Editor

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Message from the Editor-in-Chief

Symmetry is ultimately the most important concept in natural sciences. It is not surprising then that very basic and fundamental research achievements are related to symmetry. For instance, the Nobel Prize in Physics 1979 (Glashow, Salam, Weinberg) was received for a unified symmetry description of electromagnetic and weak interactions, while the Nobel Prize in Physics 2008 (Nambu, Kobayashi, Maskawa) was received for the discovery of the mechanism of spontaneous breaking of symmetry, including CP symmetry. Our journal is named *Symmetry* and it manifests its fundamental role in nature.

Editor-in-Chief

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