

Title

Gravitational waves from black hole binaries in quadratic gravity

Abstract

We consider a black hole binary system within General Relativity (GR) modified by the addition of quadratic in curvature terms to the Einstein-Hilbert action. We treat the additional massive Scalar and Spin-2 waves in the linearised approximation and compute corrections to the GR prediction for gravitational waves. Confronting theoretical calculations with existing data from LIGO-VIRGO Collaboration we obtain bounds on quadratic in curvature terms.

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