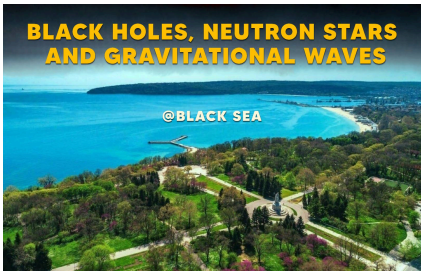

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The spectrum of quasinormal modes of rapidly rotating Einstein-Gauss-Bonnet-dilaton black holes

Friday 20 June 2025 14:00 (30 minutes)

In this talk we will discuss the quasinormal mode spectrum of rapidly rotating black holes in Einstein-Gauss-Bonnet-dilaton theory, which is crucial for understanding the ringdown phase that follows from a black hole merger. Unlike previous studies that relied on pproximations, we compute the QNM spectrum non-perturbatively, providing robust results even for large coupling constants. Using a spectral decomposition of the metric and scalar field perturbations, we solve a system of coupled partial differential equations to determine the spectrum. We will discuss some properties of the spectrum, such as the breaking of isospectrality and dependence of the modes on the angular momentum and coupling parameter of the theory.

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