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Title: Constraints on quasinormal-mode frequencies with LIGO-Virgo binary–black-hole observations

Abstract: The no-hair conjecture in general relativity (GR) states that the properties of an astrophysical Kerr black hole (BH) are completely described by its mass and spin. As a consequence, the complex quasinormal-mode (QNM) frequencies of a binary-black-hole (BBH) ringdown can be uniquely determined by the mass and spin of the remnant object. Therefore, a measurement of the QNM frequencies provides a test of the no-hair conjecture. In this talk I will describe how this test can be done using a parameterized inspiral-merger-ringdown waveform, thereby taking full advantage of the entire signal power and removing dependency on the predicted or estimated start time of the ringdown. Using this method, I will then discuss current constraints on the QNMs of the BBHs observed so far by LIGO and Virgo.