

Abstract Submitted
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Characterizing Black Hole Mergers JOHN BAKER, WILLIAM DARIAN BOGGS, BERNARD KELLY, NASA-Goddard Space Flight Center — Binary black hole mergers are a promising source of gravitational waves for interferometric gravitational wave detectors. Recent advances in numerical relativity have revealed the predictions of General Relativity for the strong burst of radiation generated in the final moments of binary coalescence. We explore features in the merger radiation which characterize the final moments of merger and ringdown. Interpreting the waveforms in terms of an rotating implicit radiation source allows a unified phenomenological description of the system from inspiral through ringdown. Common features in the waveforms allow quantitative description of the merger signal which may provide insights for observations large-mass black hole binaries.

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