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Revisiting the emission from an extreme mass ratio plunge

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ZACHARY MARK, YANBEI CHEN, Caltech — The final stage of an extreme
mass ratio inspiral is the rapid plunge of the small particle into a black hole, leading
to ringdown. This ringdown carries information about the spacetime near the light
ring, but in principle the final emission of the particle probes the spacetime closer
to the horizon. Using a near-horizon expansion, we explore the emission from the
last stage of the plunge into a spinning black hole, and its imprint on the ringdown
signal.

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