Abstract Submitted
for the APR11 Meeting of
The American Physical Society

A physically motivated framework to describe black hole perturbations[1] ANIL ZENGINOGLU, Caltech — Black hole perturbation theory is typically studied on time surfaces that extend between the bifurcation sphere and spatial infinity. I will argue that—from a physical point of view—it is favorable to employ time surfaces that extend between the future event horizon and future null infinity. I will demonstrate how this new approach resolves problems related to the representation of quasinormal mode eigenfunctions, the construction of short-ranged potentials for curvature perturbations, and the numerical calculation of gravitational waveforms as measured by an idealized observer.

[1]NSF grant PHY-0601459 and a Sherman Fairchild Foundation grant to Caltech.

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Date submitted: 14 Jan 2011 Electronic form version 1.4