Binary black hole wave extraction - results with Mesh Refinement BRENO IMBIRIBA, UMD - NASA/GSFC, JOHN BAKER, NASA/GSFC — We apply numerical simulations with mesh refinement in a Lazarus-type model for radiation from a binary black hole system. This technique begins with a full 3D, nonlinear, evolution of a binary black hole system. We apply mesh refinement to enable high resolution finite differencing at the punctures while placing the outer boundary sufficiently far. This evolution is carried out using the BSSN equations and the "1+log" gauge. Data from the final stages of that evolution are used to construct initial data for the Teukolsky perturbation equation, which continues the evolution, treated as curvature perturbations of a Kerr black hole.

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