Jacob Sterbenz\* (jsterben@math.ucsd.edu), Jesus Oliver and Daniel Tataru. Decay estimates on black hole backgrounds.

We discuss recent work with Daniel Tataru and Jesus Oliver concerning decay estimates for hyperbolic equations on Lorentzian manifolds of "black hole" type. This includes local energy decay as well as more refined  $L^{\infty}$  estimates. Some applications to nonlinear problems will be mentioned. (Received February 10, 2014)