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Jesus R Oliver* (jroliver@math.ucsd.edu), 9500 Gilman Dr., La Jolla, CA 92093. *A Vector Field Method for Non-trapping, Radiating Spacetimes.*

We study the global boundedness and decay properties of solutions to the linear wave equation in 3+1 dimensions on time-dependent, non-trapping, radiating space-times. Assuming a local energy decay estimate, we prove that sufficiently regular solutions to this equation have bounded conformal energy. As an application we also show a bound on conformal energy with vector fields as well as a global L^∞ decay estimate in terms of a weighted norm on initial data. (Received July 01, 2014)