

1118-35-30

Benjamin Dodson, 3400 N Charles Street, Baltimore, MD 21218, and **Nishanth Abu Gudapati*** (nishanth.gudapati@yale.edu), 10 Hillhouse Avenue, New Haven, CT 06511.

Scattering for 2+1 Dimensional Einstein-Wave Map System.

Wave maps are nonlinear wave structures which are natural geometric generalizations of harmonic maps on the one hand and linear wave equations on the other. Such structures occur in several situations in gauge field theories. In particular, wave maps type structures have applications in Einstein's equations of general relativity, most notably in the initial value formulation of Einstein's equations and in the Kaluza-Klein reduction.

In this talk, after motivating the study of asymptotic behaviour of Einstein's equations, we shall discuss some recent results concerning the scattering of a 2+1 dimensional Einstein-wave map system. (Received January 10, 2016)