

Almost sure scattering for the energy critical nonlinear wave equation

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We will discuss the energy critical nonlinear wave equation. For smooth initial data, it is widely known that the solutions scatter, i.e., they asymptotically behave like solutions to the linear wave equation. In this talk, we will show that the scattering behaviour persists even under random and rough perturbations of the initial data. Since deterministic perturbations can lead to finite time blowup, the result is an example of regularization by noise. As part of the argument, we will discuss techniques from restriction theory, such as wave packet decompositions and Bourgain's bush argument.