

1032-35-181

Slim Ibrahim* (ibrahim@math.asu.edu), Department of Mathematics, Arizona State University, P.O. Box 871804, Tempe, AZ 85287-1804, and **Mohamed Majdoub** (mohamed.majdoub@fst.rnu.tn), **Nader Masmoudi** (masmoudi@courant.nyu.edu) and **Kenji Nakanishi** (n-kenji@math.kyoto-u.ac.jp). *Scattering for energy critical NLS and NLKG equations in two space dimension*. Preliminary report.

The Schrodinger and Klein-Gordon equations with exponential nonlinearities are energy critical in two space dimension. The criticality is discussed with respect to the size of the Hamiltonian.

I will show that every global solution in the sub- and critical cases scatters. The peculiarity of this type of equations is that the Strichartz norms give time-local control of the nonlinearity which is not uniform as the energy tends to 1, and in the critical case (where the energy = 1), it is not a priori uniform in time even for a fixed solution.

This is a joint work with M. Majdoub, N. Masmoudi and K. Nakanishi. (Received August 21, 2007)