

Colloquium

November 5, 2008

4:10 pm

Surge 284

Tea Time will be at 3:40

Shijun Zheng

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“Harmonic Analysis and Nonlinear Schroedinger Equations”

Abstract: The dissipative mechanism of Schroedinger equation is mathematically described by the decay estimate of solutions. In this talk I mainly focused on the use of harmonic analysis techniques to obtain Hoermander type spectral multiplier theorem and suitable time decay estimates. The applications include proving the wellposedness for semilinear Schroedinger equation in an external magnetic field. It turns out that the scattering with a potential shares similar consequence to that with a nonlinear perturbation.