DIFFERENTIAL GEOMETRY/PDE SEMINAR

Wednesday, May 17, 2017
Padelford C-36
4PM–5PM

Strichartz estimates for wave equations with charge transfer Hamiltonians

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We will discuss Strichartz estimates for linear wave equations with several moving potentials in $\mathbb{R}^3$ (a.k.a. charge transfer Hamiltonians) which appear naturally in the study of nonlinear multisoliton systems. We show that local decay estimates systematically imply Strichartz estimates. To study local decay estimates, we introduce novel reversed Strichartz estimates along slanted lines and energy comparison under Lorentz transformations. As applications, we will also discuss related scattering problems and a construction of multisoliton in $\mathbb{R}^3$ with strong interactions.

For more information about this seminar, visit the DG/PDE Seminar Web page (from the Math Department home page, `www.math.washington.edu`, follow the link **Seminars, Colloquia, and Conferences**).