RENSSELAER POLYTECHNIC INSTITUTE

DEPARTMENT OF MATHEMATICAL SCIENCES COLLOQUIUM

"Critical points and their stability in continuous resonance equations"

Abstract:

Recently Faou-Germain-Hani introduced a continuous resonance (CR) equation applying systematically a variant of weak turbulence theory approach to a nonlinear Schroedinger equation (NLS). They obtained CR equation as a large box limit of two dimensional NLS in a weakly nonlinear regime. We consider one dimensional version of CR equation and investigate critical points and their stability. For three dimensional CR equation, we argue that the Gaussian is a ground state by a combination of numerical and analytical methods. This is a joint work with Gene Wayne (Boston University).

Vadim Zharnitsky

Monday, October 29, 2018

4-5pm

Amos Eaton 214

Host: Yuri Lvov

Refreshments served 3:30-4pm Amos Eaton 4th Floor Lounge