

MIT/HARVARD ANALYSIS SEMINAR

Natasa Pavlovic
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will speak on:

"On a periodic nonlinear Schrödinger equation"

Date : *Friday, April 7, 2006*

Time : *4:15pm*

Location: *MIT 2-142*

Abstract: In this talk we will present a joint work with Daniela De Silva, Gigliola Staffilani and Nikolaos Tzirakis on global well-posedness for the L^2 critical Schrödinger equation with periodic boundary conditions in 1D. By combining an implementation of the method of almost conservation laws with number theoretic techniques we prove that the problem is globally well-posed in the Sobolev space $H^s(\mathbb{T})$, for any $s > 4/9$. Our 1D result matches the best known global well-posedness result for the corresponding problem on line.