Massachusetts Institute of Technology
Department of Mathematics

LUNCH SEMINAR FOR GRADUATE STUDENTS

Monday, April 22, 2013
12:00 - 1:00 PM

Room 2-143

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(MIT)

"Dispersive equations and their role beyond PDE"

Abstract

Arguably the star in the family of dispersive equations is the Schrödinger equation. Among many mathematicians and physicists it is regarded as fundamental, in particular to understand complex phenomena in quantum mechanics. But not many people may know that this equation, when defined in a periodic setting for example, has a very reach and more abstract structure that touches several fields of mathematics, among which analytic number theory, symplectic geometry, dynamical systems and probability. In this talk I will illustrate in the simplest possible way how all these different aspects of a unique equation have a life of their own while interacting with each other to assemble a beautiful and subtle picture.

Followed by pizza in room 2-290