

1106-35-2834

**Andrea R Nahmod\*** ([nahmod@math.umass.edu](mailto:nahmod@math.umass.edu)). *The nonlinear Schrodinger equation on tori: integrating harmonic analysis, geometry and probability.* Preliminary report.

The field of nonlinear dispersive and wave equations has undergone significant progress in the last twenty years thanks to the influx of tools and ideas from nonlinear Fourier and harmonic analysis, geometry, analytic number theory and most recently probability, into the existing functional analytic methods.

In this talk we concentrate on the semi linear Schrodinger equation defined on tori and discuss the most important developments in the analysis of these equations. In particular, we will discuss recent work by Bourgain and Demeter proving the full range of Strichartz estimates on regular and irrational tori and thus settling an important earlier conjecture by Bourgain. (Received September 16, 2014)