DIPARTIMENTO DI MATEMATICA

COLLOQUIO DI DIPARTIMENTO

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The many faces of dispersive equations

In recent years great progress has been made in the study of dispersive and wave equations. Over the years the toolbox used in order to attack highly nontrivial problems related to these equations has developed to include a variety of techniques from Fourier and harmonic analysis, analytic number theory, math physics, dynamical systems, probability and symplectic geometry. In this talk I will introduce a variety of problems connected with dispersive equations, such as the derivation of a certain nonlinear Schrodinger equations from a quantum many-particles system, periodic Strichartz estimates, the concept of energy transfer, the invariance of a Gibbs measure associated to an infinite dimension Hamiltonian system and, if time allows it, non-squeezing theorems for such systems when they also enjoy a symplectic structure.

*tutti gli interessati sono
invitati a partecipare*