

**Seminario de análisis matemático y aplicaciones
Analisi matematikoa eta aplikazioak mintegia**

**Randomization and long-time existence
of infinite energy solutions to nonlinear
PDE**

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ABSTRACT: In recent years there has been fundamental progress in the understanding of the long time dynamics of solutions to nonlinear dispersive PDE. Yet there remain some important open questions. A natural approach to tackle some of them is to consider evolution equations from a non-deterministic point of view by studying the dynamics of randomized Cauchy data and incorporate to the deterministic toolbox, powerful but still classical tools from probability. Such approach goes back to seminal work by Bourgain (mid 90's) who proved the almost sure global well-posedness of certain periodic Hamiltonian PDEs via the existence and invariance of associated Gibbs measures.

In this talk we will explain these ideas, summarize some more results in this direction and describe recent work with Gigliola Staffilani for periodic nonlinear Schrödinger equations (NLS).

LUGAR / LEKUA:

**Sala de seminarios de la sección de matemáticas
Matematika ataleko mintegi gela**

DÍA Y HORA / EGUNA ETA ORDUA:

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