TEXAS ★ STATE
MATHEMATICS ®

Differential Equations and Applied Math Seminar

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12-1pm October 14th, 2022

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Title: Quasi-periodic in time solutions of nonlinear random Schrodinger equations

Abstract: For Anderson model ($H_\lambda = \Delta + \lambda V$, where Δ is the discrete Lapalcian on the lattice $\mathbb{Z}^d$, $\lambda > 0$ is the strength of the disorder and $V = \{v_n\}_{n \in \mathbb{Z}^d}$ is a family of independent identically distributed random variables), it is known that in one dimension, H_λ has Anderson localization at arbitrary disorder λ and in dimension $d \geq 2$, H_λ has Anderson localization at large disorder λ. With Weimin Wang, we proved a nonlinear version, namely we established the persistence of quasi-periodic in time solutions of nonlinear random Schrödinger equations bifurcating from the linear ones.

Interested faculty, graduate and undergraduate students are encouraged to attend.