

Global stabilization of the cubic defocusing nonlinear Schrödinger equation on the torus

Wednesday, October 18, 2023 4:30 PM (1 hour)

In this talk, I will focus on the stabilization of defocusing nonlinear Schrödinger equations on manifolds, arising naturally as models of wave propagation in fiber optics. I will first recall local and semi-global results that have been obtained since the beginning of the 2000's. Then, I will introduce a method that I have developed in collaboration with Jérémy Martin to prove the (uniform) global stabilization of the cubic defocusing nonlinear Schrödinger equation on the d -dimensional torus, $d=1, 2$ or 3 .

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