

Inverse spectral results and cascades phenomena

Sandrine Grellier, Université d'Orléans, France

Abstract: About ten years ago, in collaboration with Patrick Gérard, we established an inverse spectral theorem for Hankel operators on the unit torus. After having recalled this result, I will explain how it may be used to understand the dynamics of some ODEs and to explore the transfer of energy from low to high frequencies usually referred as cascades phenomena.