

Partial Differential Equations Seminar

Title TWISTING IN HAMILTONIAN FLOWS

Speaker 정인지 교수

Affiliation 서울대 수리과학과

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Location 과학관 225

Abstract

We prove that the twisting in Hamiltonian flows on annular domains, which can be quantified by the differential winding of particles around the center of the annulus, is stable to perturbations. In fact, it is possible to prove the stability of the whole of the lifted dynamics to non-autonomous perturbations, though single particle paths are generically unstable. These all-time stability facts are used to establish a number of results related to the long-time behavior of fluids and kinetic equations. (Joint work with T. Drivas and T. Elgindi)