

LECTURES ON KAM THEORY

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10.45-11.45: Lecture 1: *KAM for 1d Hamiltonian PDEs: the basic theorem*

Hamiltonian PDEs, the problem of long-time behaviour of their solutions and the KAM theory as a tool to study it. Basic KAM theorem: perturbations of 1d linear equations, depending on a vector-parameter.

14.00-15.00: Lecture 2: *Applications of the basic theorem and its development*

Other perturbative situations, when the KAM theory applies: small oscillations in nonlinear PDEs, and perturbations of integrable equations. KAM for space-multidimensional equations, and the problem of linear stability of the KAM-solutions.

Date : Friday, May 11, 2018

Place : IMBM Seminar Room, Boğaziçi University South Campus