Asymptotic models for Hamilton–Jacobi–Bellman equations

Antonio Siconolfi
Universita' Roma La Sapienza
siconolf@mat.uniroma1.it

joint work with *Thuong Nguyen*

Abstract

We present an unified approach of periodic homogenization and singular limit in a nonperiodic setting for a family of Hamilton–Jacobi–Bellman equations associated to control problems. The aim is to provide a qualitative analysis by means of tools coming from weak KAM theory and to give a detailed description of the limit problem using invariant measures of a flow related to the controlled dynamics.