



THE WEIZMANN INSTITUTE OF SCIENCE
FACULTY OF MATHEMATICS AND COMPUTER SCIENCE
Geometric Functional Analysis and Probability Seminar

Room 290C ,Ziskind Building
on Thursday, Dec 15, 2016
at 11:00

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Symbolic dynamics for non uniformly hyperbolic diffeomorphisms of compact
smooth manifolds

Abstract:

Given a dynamical system, a partition of the space induces a mapping to the space of sequences of the partition elements (a point is mapped to the partition elements containing its orbit terms). Such a duality is called Symbolic Dynamics, Markov partitions are an important tool, as the symbolic dynamics they induce enfold many of the important dynamical properties of the original system, and they allow an easier studying of them.

We show that general non uniformly hyperbolic $C^{1+\epsilon}$ diffeomorphism on compact manifolds of any dimension admit countable Markov partitions. Previously this was only known in dimension 2.