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Dynamics of smooth surface diffeomorphisms: Spectral gap and stochastic properties

Thursday, 9 December 2021 14:00 (1:15)

Content

This talk is a continuation of the lectures by Buzzi and Crovisier on surface diffeomorphisms which are differentiable infinitely many times.
(1) Jerome proved that such diffeos exhibit "entropy continuity of Lyapunov exponents"
(2) Sylvain showed that entropy continuity of Lyapunov exponents implies a property we call "strong positive recurrence"
(3) I will show that "strong positive recurrence" implies exponential decay of correlations and CLT for mixing measures of maximal entropy.
The method is to build a countable Markov partition whose transition matrix acts with spectral gap on a nice Banach space. (Joint work with Buzzi & Crovisier)

Summary

Presenter(s) :   SARIG, Omri (Weizman, Israel)

Session Classification :   Workshop