

Dynamical Systems Seminar

Date. November 6th, 14h30 (Friday)

Place. Room FC1.031

Speaker. Marcelo Durães (FCUL - Universidade de Lisboa)

Title. Furstenberg Theory for Singular Cocycles

Abstract.

Consider the space of two-dimensional random linear cocycles over a shift in finitely many symbols, with at least one singular and one invertible matrix. We provide an explicit formula for the unique stationary measure associated to such cocycles and establish a Furstenberg type formula characterizing the Lyapunov exponent. Using the spectral properties of the corresponding Markov operator and a parameter elimination argument, we prove that Lebesgue almost every cocycle in this space satisfies large deviations estimates and a central limit theorem.

This is a joint work with Pedro Duarte, Tomé Graxinha and Silviu Klein.

There will be a coffee break after the seminar.