



UC3M-ICMAT Seminar – 2014

Applied Probability and Statistics

Deterministic versus stochastic dynamics

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Wednesday, January 29, 2014

12h00, ICMAT, Aula Gris I

The aim of this talk is to present some features concerning the effects of noise on the asymptotic behaviour of dynamical systems. First, we will recall some results on the stabilizing and destabilizing effects which the appearance of different kinds of noise (e.g. Ito or Stratonovich) may have on the stationary solutions (equilibria) of deterministic dynamical systems. Second, we will exhibit some other results which show the analogies and differences that the appearance of different kind of noise may have on the global asymptotic behaviour of deterministic dynamical systems, emphasizing that the theory of random dynamical systems is a suitable tool for this analysis, especially for the existence of attracting sets which may be responsible for its strange or not so strange dynamics.

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