

Spontaneous Stochasticity

Alexei A. Mailybaev¹

¹ IMPA

I will give an introduction to the phenomenon of spontaneous stochasticity, which is a property of some multi-scale dynamical systems. As a probability measure describing a solution of a chaotic dynamical system at long time, a formally deterministic Cauchy problem for a multi-scale system may be solved by a stochastic (Markov) process at finite times.