Bifurcations of the perturbed logistic map[*]

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Abstract

We study, mainly numerically, the bifurcation scenario of the logistic map perturbed by different type of noise.

Let X a metric space. The orbit of a point $x_0 \in X$ is calculated with formula

$$x_{n+1} = rx_n(1 - x_n) + \xi_n, n \in \mathbf{N},$$

where $r \in \mathbf{R}$ is a parameter, $\xi_n, n \in \mathbf{N}$ are independent random variables. We study the bifurcations for different type of random variables.

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[*]poster