ILLINOIS
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

Department of Mechanical Science and Engineering

1206 West Green St, Urbana, IL 61801, USA

8 April 2011

Dear Editors,

We would like to submit our article "The cutoff phenomenon and mixing by chaotic maps" for inclusion in the SIAM Journal on Applied Dynamical Systems. This paper takes the concept of a cutoff phenomenon from the Markov chain literature and asks whether the mixing behavior of 1D chaotic maps (as encoded by their Perron-Frobenius operators) can produce cutoffs. We prove that the answer to this question is positive, at least in the case when the chaotic map has full shift symbolic dynamics. Our proof technique uses a generalized form of symbolic dynamics that encode probabilistic information.

Sincerely,

Matthew West

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