Godó, B.; Nagy, Á.
Detecting regular and chaotic behaviour in the parameter space by generalised statistical complexity measures. (English) Zbl 1353.37040

Summary: Regular and chaotic behaviour are distinguished in the parameter space by generalised complexity measures for the Henon and Tinkerbell maps. The generalised complexity measure provides a much simpler way of detecting chaotic behaviour than the Lyapunov exponent.

MSC:
37C05 Dynamical systems involving smooth mappings and diffeomorphisms
39A33 Chaotic behavior of solutions of difference equations
37A35 Entropy and other invariants, isomorphism, classification in ergodic theory
94A17 Measures of information, entropy

Keywords:
generalised statistical complexity; Hénon map; Tinkerbell map

Full Text: DOI

References:


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