

**Guckenheimer, John**

**Limit sets of S-unimodal maps with zero entropy.** (English) Zbl 0625.58027  
*Commun. Math. Phys.* 110, 655-659 (1987).

One-dimensional mappings “at the limit of period doubling” are studied in this paper without the use of the renormalization theory of Feigenbaum and others. The principal result is that the attracting part of the nonwandering set is a Cantor set of measure zero under the additional assumption that the map has negative Schwarzian negative.

**MSC:**

**37G15** Bifurcations of limit cycles and periodic orbits in dynamical systems Cited in 15 Documents

**Keywords:**

period doubling; renormalization theory of Feigenbaum; nonwandering set; Schwarzian negative

**Full Text:** [DOI](#)

**References:**

- [1] Feigenbaum, M.: Universal behavior in nonlinear systems, *Los Alamos Sci.*1, 4-29 (1980)
- [2] Guckenheimer, J.: Sensitive dependence to initial conditions for one dimensional maps. *Commun. Math. Phys.*70, 133-160 (1979) · [Zbl 0429.58012](#) · [doi:10.1007/BF01982351](#)
- [3] Singer, D.: Stable orbits and bifurcations of maps of the interval. *SIAM J. Appl. Math.*35, 260-267 (1978) · [Zbl 0391.58014](#) · [doi:10.1137/0135020](#)

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