

**Nowicki, Tomasz**

**A positive Lyapunov exponent for the critical value of an  $S$ -unimodal mapping implies uniform hyperbolicity.** (English) Zbl 0638.58021

Ergodic Theory Dyn. Syst. 8, No. 3, 425-435 (1988).

A positive Lyapunov exponent for the critical value of an  $S$ -unimodal mapping implies a positive Lyapunov exponent of the backward orbit of the critical point, uniform hyperbolic structure on the set of periodic points and an exponential diminution of the length of the intervals of monotonicity. This is the proof of the Collet-Eckmann conjecture from 1981 in the general case [*P. Collet* and *J. Eckmann*, Ergodic Theory Dyn. Syst. 3, 13-46 (1983; [Zbl 0532.28014](#))].

Reviewer: [T.Nowicki](#)

**MSC:**

[37D20](#) Uniformly hyperbolic systems (expanding, Anosov, Axiom A, etc.)  
[37A05](#) Dynamical aspects of measure-preserving transformations  
[28D05](#) Measure-preserving transformations

Cited in **1** Review  
Cited in **11** Documents

**Keywords:**

[Lyapunov exponent](#); [hyperbolicity](#)

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

**References:**

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- [3] Nowicki, Ergod. Th. & Dynam. Sys. 5 pp 611- (1985)
- [4] DOI: [10.2307/1971367](#) · [Zbl 0597.58016](#) · [doi:10.2307/1971367](#)
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