

Devaney, Robert L.

An introduction to chaotic dynamical systems. 2nd ed. (English) Zbl 0695.58002
Redwood City, CA etc.: Addison-Wesley Publishing Company, Inc. xvi, 336 p. (1989).

Second edition of the first edition in (1986; [Zbl 0632.58005](#)).

From the author's preface: "We have added new material on the orbit diagram and a new section on the Mandelbrot set. Apart from this, the only other major changes from the first edition include a revised treatment of elementary bifurcation theory and Sarkovskij's theorem."

MSC:

- [37-01](#) Introductory exposition (textbooks, tutorial papers, etc.) pertaining to dynamical systems and ergodic theory
- [37Dxx](#) Dynamical systems with hyperbolic behavior
- [37D45](#) Strange attractors, chaotic dynamics of systems with hyperbolic behavior
- [37G99](#) Local and nonlocal bifurcation theory for dynamical systems

Cited in **31** Reviews
Cited in **760** Documents

Keywords:

dynamical systems; one-dimensional quadratic map; structural stability; Morse-Smale diffeomorphism; Sarkovskij theorem; homoclinic points; symbolic dynamics; kneading theory; period-doubling; chaos; horseshoe map; attractors; Anosov systems; Hopf bifurcation; Henon map; Julia sets; attracting fixed point; orbit diagram; Mandelbrot set; bifurcation theory