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Letting be a metric space, a continuous map, and the space of nonempty fuzzy compact subsets of with the Hausdorff metric, one may study the dynamical properties of the Zadeh's extension .In this paper, we present, as a response to the question proposed by Román-Flores and Chalco-Cano 2008, some chaotic relations between and .More specifically, we study the transitivity, weakly ...Some Chaotic Properties of Discrete Fuzzy Dynamical SystemsThis paper is concerned with chaos of time-varying (i.e. non-autonomous) discrete systems in metric spaces. 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Discrete maps usually take the form of iterated functions. Chaotic maps often occur in the study of dynamical systems. Chaotic maps often generate fractals. Although a fractal may be constructed by an iterative procedure, some fractals are studied in and of themselves, as sets rather than in terms of the map that generates them.

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Discrete Dynamical Systems and Chaotic Machines: Theory and Applications (Chapman & Hall/CRC Numerical Analysis and Scientific Computing Series Book 20) eBook: Bahi, Jacques M., Guyeux, Christophe: Amazon.co.uk: Kindle Store

A discrete chaotic dynamical system on the Sierpinski gasket

Chaos theory is a branch of mathematics focusing on the study of chaos—states of dynamical systems whose apparently random states of disorder and irregularities are often governed by deterministic laws that are highly sensitive to initial conditions. Chaos theory is an interdisciplinary theory stating that, within the apparent randomness of chaotic complex systems, there are underlying ...

Discrete Dynamical Systems And Chaotic

In a deterministic discrete dynamical system, the state of each agent at the next time step is uniquely determined by its current state and the current states of all agents it interacts with, according to the rules that determine the dynamics. The resulting sequence of network states is called a trajectory. If the system has only finitely many states, each trajectory must eventually enter a set of states that it will visit infinitely often.

Feigenbaum constants - Wikipedia

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References. Alligood, Kathleen T., Tim D. Sauer, James A. Yorke, Chaos: An Introduction to Dynamical Systems, Textbooks in mathematical sciences Springer, 1996, ISBN 978-0-38794-677-1 Briggs, Keith (July 1991). "A Precise Calculation of the Feigenbaum Constants" (PDF). Mathematics of Computation.

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