

Drubi, Fátima; Ibáñez, Santiago; Rodríguez, J. Ángel

Singularities and chaos in coupled systems. (English) Zbl 1153.37018

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Summary: In [J. Differ. Equations 239, No. 2, 371–385 (2007; [Zbl 1133.34027](#))] we proved that a system consisting of two brusselators linearly coupled by diffusion contains strange attractors. In this paper we will give numerical examples of the chaotic behaviour predicted by the theoretical results. Some details about error analysis, not included in [loc. cit.], will be supplied here.

MSC:

[37D45](#) Strange attractors, chaotic dynamics of systems with hyperbolic behavior

Cited in **2** Documents

[34C28](#) Complex behavior and chaotic systems of ordinary differential equations

Keywords:

[coupled systems](#); [nilpotent singularities](#); [strange attractor](#); [Shil'nikov homoclinic orbit](#)

Full Text: [Euclid](#)