

Rössler, O. E.

An equation for hyperchaos. (English) Zbl 0996.37502
Phys. Lett., A 71, No. 2-3, 155-157 (1979).

The author investigates a four-variable oscillator that contains only one nonlinear quadratic term. By numerical simulation it is shown that the quadratic term produces chaos with two directions of hyperbolic instability on the attractor. He conjectures that in case this result is valid for systems of higher dimension than 4, turbulences may involve more than one direction of lateral instability, so turbulence may be hyperchaos of high order.

MSC:

37D45 Strange attractors, chaotic dynamics of systems with hyperbolic behavior

Cited in **2** Reviews
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