What is new about Lorenz-like attractors

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Abstract

We shall describe some recent results on the dynamics of Lorenz-like attractors as:

(1) they always have an invariant foliation whose leaves are forward contracted by the flow, (2) positive Lyapunov exponent at every orbit, (3) are expansive and in particular are sensitive with respect to initial data. (4) C^2 Lorenz-like attractors have zero volume. (5) they have a physical measure whose support is the whole attractor. (6) the hitting time associated to a Lorenz geometrical model satisfies the logarithm law.