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Dynamics and circuit realization of a no–equilibrium chaotic system with a boostable variable

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Abstract

Recent evidence suggests that there exists chaos in a few no–equilibrium systems. A chaotic system without equilibrium is proposed and studied in this work. It is worth noting that due to the absence of equilibrium, such a system belongs to a class of systems with hidden attractor. Dynamics properties and the feasibility of the system are investigated by using numerical simulations and circuit implementation. Interestingly, this no–equilibrium system has one variable with the freedom of offset boosting.

Keywords: Chaos, Equilibrium, Hidden attractor, Boostable variable,

Circuit

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