

Renormalization and α -limit set for expanding Lorenz maps

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Abstract

We show that there is a bijection between the renormalizations and proper completely invariant closed sets of expanding Lorenz map, which enables us to distinguish periodic and non-periodic renormalizations. Based on the properties of the periodic orbit with minimal period, the minimal completely invariant closed set is constructed. Topological characterizations of the renormalizations and α -limit sets are obtained via consecutive renormalizations.

The talk is based on the paper Y. Ding, Renormalization and α -limit set for expanding Lorenz map, *Discrete Contin. Dyn. Syst.* 29 (2011) 979–999.