

On the renormalization operator for multimodal maps

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Abstract:

We show that in a generic family of multimodal maps, the set of parameters for which the map is infinitely renormalizable with bounded combinatorics has zero Lebesgue measure. To this end, we show that the renormalization operator for those combinatorics is hyperbolic on its omega-limit set. Then we study the action of the renormalization operator in families transversal to the stable lamination of the omega-limit set to obtain the main result.