

RENORMALIZATION FOR SOME PIECEWISE SMOOTH HOMEOMORPHISMS OF THE CIRCLE

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Resumo/Abstract:

In this work, we find sufficient conditions for two piecewise $C^{2+\nu}$ homeomorphism f and g of the circle to be C^1 conjugate. Besides the restrictions on the combinatorics of the maps (we assume that maps have bounded “rotation number”), and necessary conditions on the one-side derivatives of points where f and g are not differentiable, we also assume zero mean nonlinearity for f and g .

The proof is based on the study of Rauzy-Veech renormalization of genus one generalized interval exchange maps with certain restrictions on its combinatorics. This is a join work with Daniel Smania (ICMC-USP).

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