

Non-differentiability points for topological conjugacies of countable branch Markov maps

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We consider topological conjugacies between countable Markov maps. In particular we look at the set of points where the derivative of the conjugacy either does not exist. We will show that if we have a sequence of maps, T_k converging pointwise to a map T , then the dimension of the set tends to 1. We will give examples where this holds but other quantities such as the entropy of the absolutely continuous measure does not behave continuously. This is joint work with Sara Munday and Tuomas Sahlsten