

Adding machine, Automata and Julia sets

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Abstract.

In this talk I will discuss the notion of entropy in the one dimensional setting. It is well known, that for a single homeomorphism entropy is always zero, yet this is not necessarily the case for more general group actions. In particular, entropy is positive as soon as the group contains "crossed elements", and it is a result from Ghys, Langevin and Walczak, that in the C2 setting crossed elements is the only mechanism for producing entropy. This is no longer true in the C0 setting, and it is an open problem in the C1 setting. My aim for the talk is to explain the notions above, and describe some mechanisms for producing entropy in the absence of crossed elements. This is a ongoing project with Michele Triestino, Andrés Navas and Nicolas Matte Bon