

Distortion in diffeomorphisms groups... and germs (?)

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An element of a finitely generated group is distorted if the word length of its powers grows sublinearly (w.r.t. the exponent). More generally, an element of an arbitrary group G is a distortion element if it is distorted inside some finitely generated subgroup. In this talk, I will focus on the case where G is a group of diffeomorphisms (or some relative), recalling some known results and addressing several natural questions. In particular, I will discuss the case of the group of germs of analytic diffeomorphisms at the origin and I will present some results for the closely-related group of interval diffeomorphisms.

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