

Strict domination and hyperbolic manifolds

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Abstract: A strict domination between two closed hyperbolic manifolds is a c -Lipschitz map with $c < 1$, which has nonzero degree. Through the work of Gueritaud-Kassel and Tholozan, this has some interesting connections to locally homogeneous spaces and volumes. Strict dominations arise quite naturally in dimension two from holomorphic branched coverings, thanks to the Schwarz-Pick Theorem. After discussing this motivation, I will describe work with Grant Lakeland, building on an example suggested by Ian Agol, providing a general construction of strict domination in dimensions three and four.