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Owen Thomas Baker* (obaker@math.mcmaster.ca), Department of Math & Stats, McMaster University, 1280 Main Street West, Hamilton, Ontario L8S 4K1, Canada. *Cannon–Thurston Maps and Subgroup Distortion*.

If H and G are hyperbolic groups and $H \leq G$, then a continuous map $\partial H \rightarrow \partial G$ induced by the inclusion homomorphism is called a Cannon–Thurston map. It is unique if it exists. In this talk, I will discuss joint work with Tim Riley where we show that the Cannon–Thurston map fails to exist in some instances, answering a question of Mitra. Then I will discuss the effect of the complexity of the subgroup distortion on the quality of the Cannon–Thurston map, in cases where the map exists. (Received September 25, 2012)