



Mathematics > Group Theory

Cannon-Thurston maps do not always exist

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We construct an example of a hyperbolic group with a hyperbolic subgroup for which the Cannon-Thurston map does not exist. That is, inclusion does not induce a map of the boundaries.

Comments: *Added an example with only exponential distortion where the Cannon-Thurston map fails to exist. *Replaced an ad hoc proof that γ_n is near a geodesic with a small-cancellation theory proof that it is actually geodesic (suggested by Ilya Kapovich and Hamish Short) 8 pages, 2 figures

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