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Jason A. Behrstock* (jason.behrstock@lehman.cuny.edu), Department of Mathematics, Lehman College, CUNY, Bronx, NY 10468, and **Walter D. Neumann**, NY. *Quasi-isometric classification of 3-manifold groups.*

Any finitely generated group can be endowed with a natural metric which is unique up to maps of bounded distortion (quasi-isometries). A fundamental question is to classify finitely generated groups up to quasi-isometry.

Considered from this point of view, fundamental groups of 3-manifolds provide a rich source of examples. Surprisingly, a concise way to describe the quasi-isometric classification of 3-manifolds is in terms of a concept in computer science called "bisimulation." We describing this classification and a geometric interpretation of bisimulation. (Received December 22, 2010)