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**Tullia Dymarz\*** ([tullia.dymarz@yale.edu](mailto:tullia.dymarz@yale.edu)), Yale University, Mathematics Dept., PO Box 208283, New Haven, CT 065208283. *Large scale geometry of certain solvable Lie groups.*

One step in the proof of quasi-isometric rigidity for cocompact lattices in real hyperbolic spaces is Tukia's theorem on conjugating uniform groups of quasiconformal maps of the boundary sphere into the group of conformal maps of the sphere. We will present an analogue of Tukia's theorem for boundaries of certain solvable Lie groups. This theorem is used in Eskin-Fisher-Whyte's and Peng's proofs of quasi-isometric rigidity for certain classes of polycyclic groups. (Received August 18, 2008)