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**Tullia Dymarz\***, Van Vleck Hall, 480 Lincoln Drive, Madison, WI 53706, and **Xiangdong Xie**, Department of Mathematics and Statistics, Bowling Green State University, Bowling Green, OH 43403. *Quasiconformal and biLipschitz maps on boundaries of negatively curved homogeneous spaces.*

Heintze showed that all negatively curved homogeneous spaces  $H$  can be characterized as solvable Lie groups that are a semi-direct product of a nilpotent Lie group  $N$  by the reals  $\mathbb{R}$  where the action of  $\mathbb{R}$  is by an expanding automorphism. The visual boundary of  $H$  (minus a point) can be identified with the nilpotent Lie group  $N$  and can be endowed with a visual metric  $d$ . Quasi-isometries of  $H$  induce quasiconformal maps on this boundary  $(N, d)$ . By work of Xie we know that in most cases these quasiconformal maps are actually biLipschitz which in turn has implications for the structure of quasi-isometries of  $H$ . Together with Xie we study groups of quasiconformal/biLipschitz maps on  $(N, d)$ . These results then can be used to prove quasi-isometric rigidity for a variety of spaces. (Received January 29, 2019)