ON HYPERBOLIC GROUPS WHOSE BOUNDARIES ARE SPHERES

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We show that a torsion free hyperbolic group G whose boundary is an n-sphere admits a free cocompact action on $S^n \times R^{n+1}$. If n=2, this implies that G is a quotient of the fundamental group of a hyperbolic 3-manifold M, with equality if and only if the simplicial volume of M is the simplicial volume of a K(G,1).