Freden, Eric M.

Negatively curved groups have the convergence property. I. (English) Zbl 0847.20031

Ann. Acad. Sci. Fenn., Ser. A I, Math. 20, No. 2, 333-348 (1995).

It is known that the Cayley graph Γ of a negatively curved (Gromov-hyperbolic) group G has a well-defined boundary at infinity $\partial\Gamma$. Furthermore, $\partial\Gamma$ is compact and metrizable. In this paper it is shown that G acts on $\partial\Gamma$ as a convergence group. This implies that if $\partial\Gamma \simeq \partial\Gamma\mathbf{S}^1$, then G is topologically conjugate to a cocompact Fuchsian group.

Reviewer: E.M.Freden (Provo)

MSC:

20F65 Geometric group theory
57S05 Topological properties of groups of homeomorphisms or diffeomorphisms

Keywords:

negatively curved groups; Gromov hyperbolic groups; Cayley graphs; convergence groups; cocompact Fuchsian groups

Full Text: EMIS EuDML