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Vladimir V Chaynikov*, chayn1v@cmich.edu. *Every Non-Elementary Hyperbolic Group Admits a Highly Transitive Action of Maximal Growth.*

We prove that every non-elementary hyperbolic group G acts highly transitively (i.e. k -transitively for all natural numbers k) on some infinite set X . Moreover the constructed action has maximal growth, finite kernel $E(G)$ (i.e. the maximal finite normal subgroup of G) and each orbit of action by every element $g \in G$ is finite.

As a side-product of our approach we prove that for a non-elementary hyperbolic group G and a quasiconvex subgroup of infinite index $H \leq G$ there exists $g \in G$ such that $\langle H, g \rangle$ is quasiconvex of infinite index and is isomorphic to $H * \langle g \rangle$ if and only if $H \cap E(G) = \{e\}$. (Received September 16, 2013)