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*Hyperfiniteness of boundary actions of acylindrically hyperbolic groups*

A Borel equivalence relation on a Polish space is called hyperfinite if it can be approximated by equivalence relations with finite classes. This notion has long been studied in descriptive set theory to measure complexity of Borel equivalence relations. Although group actions on hyperbolic spaces don't always induce hyperfinite orbit equivalence relations on the Gromov boundary, some natural boundary actions were recently found to be hyperfinite. Examples of such actions include actions of hyperbolic groups and relatively hyperbolic groups on their Gromov boundary, actions of mapping class groups on arc graphs and curve graphs, and acylindrical group actions on trees. In this talk, I will show that any acylindrically hyperbolic group admits a non-elementary acylindrical action on a hyperbolic space with hyperfinite boundary action.