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Hyperfiniteness of boundary actions of small cancellation groups

A metric space is *(Gromov) hyperbolic* if geodesic triangles in the metric space are uniformly slim. To any Gromov hyperbolic metric space, one can associate a boundary at infinity, called the *Gromov boundary*, which often has a natural Polish topology. A group acting on a hyperbolic metric space by isometries induces an action on the associated Gromov boundary by homeomorphisms. Given a hyperbolic space equipped with an action of a group, one can study the orbit equivalence relation of the boundary action. Interestingly, this orbit equivalence relation turns out to be hyperfinite in many cases (including for actions of free groups, and more generally hyperbolic groups, on the boundaries of their Cayley graphs). We show that a class of groups of interest in geometric group theory, the *small cancellation groups*, induce hyperfinite orbit equivalence relations on the boundaries of their natural hyperbolic Cayley graphs. This is joint work with Damian Osajda and Koichi Oyakawa.