CHRISTOPHER KARPINSKI, McGill University
Hyperfiniteness of boundary actions of groups

Hyperbolic groups and the more general relatively hyperbolic groups are classes of "negatively curved groups" that are a focal point in geometric group theory. These groups come equipped with a natural boundary at infinity, which is a compact metrizable space on which the group acts. After a brief introduction to hyperbolic and relatively hyperbolic groups, we outline the core ideas behind proving that the orbit equivalence relations of the natural actions of hyperbolic and relatively hyperbolic groups on their boundaries are particularly simple from the point of view of descriptive set theory, namely, that they are hyperfinite.