Algebra/Topology Seminar

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Quasi-Isometries of Cusped Spaces for Relatively Hyperbolic Pairs

Thursday, September 5, 2019
1:15 p.m. in ES-143

Abstract. Just as Gromov hyperbolic groups arose as a generalization of fundamental groups of closed hyperbolic manifolds, relatively hyperbolic groups are meant to generalize finite volume hyperbolic manifolds. In the cocompact case, Schwarz–Milnor provides canonical structure to the group. However, in the case of a non-cocompact action, more care must be taken to recover geometric information from the space itself and its boundary. We provide necessary and sufficient conditions to assign a well defined QI type of space and quasi-symmetry type of boundary to a relatively hyperbolic pair.