
JEREMY MCDONALD, Stevens Institute of Technology

Algorithmic problems for groups discriminated by a locally quasi-convex hyperbolic group

A group H is discriminated by a group G if for every finite subset X of H there is a homomorphism from H to G that is injective on X . These groups play an important role in the theory of equations over G and are precisely the groups that satisfy the same existential sentences as G . We consider the case when G is hyperbolic and every finitely generated subgroup of G is quasi-convex. We prove that there are algorithms to embed H into extensions of centralizers of G and to construct presentations for finitely generated subgroups of H .

This is joint work with O. Kharlampovich and I. Bumagin.