

On profinite rigidity of free-by-cyclic groups

Monika Kudlinska

University of Oxford

`monika.kudlinska@maths.ox.ac.uk`

A group G is free-by-cyclic if it contains a normal subgroup F isomorphic to a free group of finite rank, such that the quotient G/F is infinite cyclic. In analogy with fundamental groups of hyperbolic 3-manifolds, we show that many properties of free-by-cyclic groups are invariants of their profinite completion. As a consequence, we obtain various profinite rigidity results, including the almost profinite rigidity of generic free-by-cyclic groups amongst the class of all free-by-cyclic groups.

(joint work with Sam Hughes)