

Basis conjugating outer automorphisms of RAAGs

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There are finitely presented groups that are not RAAGs, but pass naive tests that distinguish RAAGs from other groups. We consider one family of examples of these: the basis conjugating outer automorphism groups of RAAGs (a.k.a. the pure symmetric outer automorphisms). Inspired by a paper of Koban--Piggott, we use the BNS invariant to separate out those groups in this class that are not RAAGs. Our technique is involved, and requires the use of a new homology theory for subspace arrangements.

This is joint work with Ric Wade.