Zentralblatt–MATH

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Residual finiteness of generalized free products of isomorphic groups. (English)
Algebra Colloq. 4, No.2, 133-139 (1997). [ISSN 1005-3867]
http://link.springer.de/link/service/journals/10011/

The following main results are obtained. Theorem 3.3. Let G be a potent group, and $\varphi_i\colon G \to G_i$ isomorphisms for i in some index set I. Let H be a subgroup of G and $Q = \langle G_i \mid h\varphi_i = h\varphi_j \ \forall h \in H,\ i,j \in I\rangle$. Then, Q is potent if and only if G is H-separable.

Corollary 3.4. Let Q be a generalized free product of arbitrarily many isomorphic finitely generated, torsion-free nilpotent groups or free groups amalgamating a finitely generated subgroup. Then Q is potent.

Theorem 4.4. Let G be a π_c-group, and $\varphi_i\colon G \to G_i$ isomorphisms for i in some index set I. Let H be a subgroup of G and $Q = \langle G_i \mid h\varphi_i = h\varphi_j \ \forall h \in H,\ i,j \in I\rangle$. Then, Q is π_c if and only if G is H-separable.

Theorem 5.2. Let G be a free group and $\varphi_i\colon G \to G_i$ isomorphisms for $i = 1, 2, 3, 4$. Let H and K be subgroups of G such that H is cyclic, K is finitely generated, and $H \cap K = 1$. Let $H_i = H\varphi_i$ and $K_i = K\varphi_i$, $i = 1, 2, 3, 4$. Let P be the polygonal product of G_1, G_2, G_3, G_4 amalgamating the subgroups $H_1 = H_2$, $K_2 = K_3$, $H_3 = H_4$ and $K_4 = K_1$. Then P is potent and π_c.

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AMS subject classification: 20E06;20F05;20E22;20E26
Keywords: cyclic subgroups; separable groups; π_c-groups; potent groups; generalized free products; finitely generated torsion-free nilpotent groups; free groups; polygonal products