Polyhedral products and commutator subgroups of right-angled Artin and Coxeter groups

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We construct and study polyhedral product models for classifying spaces of right-angled Artin and Coxeter groups, general graph product groups and their commutator subgroups. By way of application, we give a criterion of freeness for the commutator subgroup of a graph product group, and provide an explicit minimal set of generators for the commutator subgroup of a right-angled Coxeter group.

This is a joint work with Taras Panov.

References

[1] T. E. Panov, Y. A. Veryovkin, Polyhedral products and commutator subgroups of right-angled Artin and Coxeter groups, arXiv:1603.06902v2.