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Applying methods of combinatorial group theory to the problem of infinite commutator products

Abstract. Infinite products of commutators are sometimes defined for topological spaces, but they need not represent elements in those abelian algebraic invariants of a space, where on the algebraic level infinite products are not defined. I talked about this phenomenon already last summer in this venue, and indicated why this phenomenon occurs for Griffiths' space and for Karimov's telescope space. This talk will focus on aspects that have not been covered in this first talk, but recall facts from this talk as far as necessary. One of them might be, how to apply classical results for one-relator groups to certain finite quotients of Karimov's telescope space – for obtaining that way the crucial information why our infinite commutator-products cannot be trivial. Maybe the time will also suffice to include a brief combinatorial argument that works in case of Griffiths' space. [Joint research with Oleg Bogopolski.]