

Quantifier elimination in the theory of free groups

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The main result that lead to the solution of Tarski's problem on the equivalence of the theories of free groups is quantifier elimination for these theories. By now, it seems that the quantifier elimination and the procedure that is used in obtaining it are the main tools in further studying model theoretic properties of free and other groups.

We intend to present some of the required structure theory, the overall strategy, and hopefully some of the details of the (sieve) procedure for quantifier elimination in the theory of free groups. Time permitting, we will present some further applications.