

Contents

Introduction — V

Anand Pillay

1 Model theory and groups — 1

Rizos Sklinos

2 Independence and interpretable structures in nonabelian free groups — 51

Olga Kharlampovich and Alexei Myasnikov

3 Quantifier elimination algorithm to boolean combination of $\exists\forall$ -formulas in the theory of a free group — 87

Olga Kharlampovich, Alexei Myasnikov, and Mahmood Sohrabi

4 Rich groups, weak second-order logic, and applications — 127

Nikolay Romanovskii

5 Rigid solvable groups. Algebraic geometry and model theory — 193

Index — 231