

ASPECTS OF INFINITE GROUPS

Editors:

Benjamin Fine, Gerhard Rosenberger, Dennis Spellman

PREFACE

This volume consists of contributions by participants and speakers at the conference entitled Aspects of Infinite Groups held at Fairfield University in March 2007 in honor of Prof. Anthony Gaglione's sixtieth birthday.

Prof. Gaglione of the United States Naval Academy at Annapolis has made important and varied contributions to several different areas of Infinite Group Theory and Combinatorial Group Theory. Along with Herman Waldinger he developed and studied many important topics within the commutator calculus. Along with Dennis Spellman he proved a magnificent result tying together the concepts of residual freeness and universal freeness. This result was also done independently by Vladimir Remeslennikov and can be considered as one of the seminal steps in the final proof of the celebrated Tarski problems. The final proof of the Tarski problems was accomplished by O.Kharlampovich and A.Myasnikov and independently by Z.Sela. Finally Prof. Gaglione, along with G.Baumslag, B.Fine, A.Myasnikov, V.Remeslennikov and D.Spellman completely developed the theory of discriminating and sqaurelike groups. This important class of groups was introduced by G.Baumslag, A.Myasnikov and V.Remeslennikov as an outgrowth of the development of algebraic geometry over groups.

The papers in this volume provide an interesting mix of results on modern infinite discrete group theory ranging from classical combinatorial group theory to algebraic geometry over groups to noncommutative algebraic cryptography.

The main speakers were primarily people who worked closely with Prof. Gaglione. They were

Prof. Michael Anshel

City University of New York, New York City, NY

Prof. Gilbert Baumslag

City University of New York, New York City, NY

Prof. Benjamin Fine

Fairfield University, Fairfield, CT
Prof. Alexei Myasnikov
McGill University, Montreal, Canada
Prof. Gerhard Rosenberger
TU Dortmund, Dortmund, Germany
Prof. Dennis Spellman
Temple University, Philadelphia, Pennsylvania

Prof. Gaglione received his Ph.D. in Mathematics from Polytechnic University in Brooklyn, New York in 1972. He has been a professor at the United States Naval Academy since 1977.

He is the author or coauthor of more than 70 journal articles representing the areas of combinatorial group theory described earlier. He is also the author or coauthor of four books.

Benjamin Fine
Gerhard Rosenberger
Dennis Spellman