

Contents

Preface	vii
Secret sharing using non-commutative groups and the shortlex order BREN CAVALLO and DELARAM KAHROBAEI	1
An algorithm that decides conjugacy in a certain generalized free product ANTHONY E. CLEMENT	9
Classification of automorphic conjugacy classes in the free group on two generators BOBBE COOPER and ERIC ROWLAND	13
On elementary free groups BENJAMIN FINE, ANTHONY GAGLIONE, GERHARD ROSENBERGER, and DENNIS SPELLMAN	41
An application of a localized version of an axiom of Ian Chiswell ANTHONY M. GAGLIONE, SEYMOUR LIPSCHUTZ, and DENNIS SPELLMAN	59
A note on Stallings' pregroups ANTHONY M. GAGLIONE, SEYMOUR LIPSCHUTZ, and DENNIS SPELLMAN	65
A CCA secure cryptosystem using matrices over group rings DELARAM KAHROBAEI, CHARALAMBOS KOUPPARIS, and VLADIMIR SHPILRAIN	73
The MOR cryptosystem and finite p -groups AYAN MAHALANOBIS	81
A group theoretical ElGamal cryptosystem based on a semidirect product of groups and a proposal for a signature protocol ANJA I. S. MOLDENHAUER	97
On some algorithmic properties of finite state automorphisms of rooted trees BENJAMIN STEINBERG	115