

CONTENTS

CHAPTER I	ORDERABLE GROUPS	1
	1.1 Introduction	1
	1.2 Definitions and Notations	2
	1.3 Characterizations of Orderable Groups	8
	1.4 Relatively and Absolutely Convex Subgroups	14
	1.5 Order-Automorphisms of Subgroups of the Additive Group of the Real Numbers	21
CHAPTER II	MORE ON ORDERABLE GROUPS	25
	2.1 Closure Properties	25
	2.2 The Role of the Centre	26
	2.3 Free Products, Direct and Free Products with Amalgamation	33
	2.4 Examples of Orderable Groups	37
	2.5 Commutator Identities	44
	2.6 Orderable Groups with Normal Relatively Convex Subgroups	47
CHAPTER III	O^* -GROUPS	53
	3.1 Basic Properties of O^* -Groups	53
	3.2 Negative Results for O^* -Groups	58
	3.3 Ordered Solvable Groups with Finite Rank	66
	3.4 I^* -Groups	73
	3.5 Other Classes Related to O^* -Groups	77
CHAPTER IV	R^* -GROUPS	79
	4.1 Solvable R^* -Groups with Finite Rank	79
	4.2 Hypercentral-by-Metabelian R^* -Groups	87
	4.3 A Non-Orderable R^* -Group	89

CHAPTER V	EMBEDDING THEOREMS AND ESCALATION GROUPS	97
	5.1 Embedding in a Perfect Group	97
	5.2 Embedding in a Simple Group	98
	5.3 Embedding in a Two-Generator Group	103
	5.4 Embedding in Ordered Division Rings	105
	5.5 Subgroups with Periodic Quotient	108
	5.6 Escalation Groups	113
CHAPTER VI	ON THE NUMBER OF WAYS OF ORDERING A GROUP	117
	6.1 Groups with Finitely Many Orders	117
	6.2 A Family of Groups with a Countable Infinity of Orders	124
CHAPTER VII	RIGHT-ORDERABLE GROUPS	127
	7.1 Characterizations of Right-Orderable Groups	128
	7.2 Convex Subgroups	132
	7.3 Closure Properties of the Class of Right-Orderable Groups	133
	7.4 \overline{C} -Groups	135
	7.5 $\overline{C^*}$ -Groups	141
	7.6 Extensions of Partial Right-Orders	147
	7.7 Group Rings of Right-Orderable Groups	154
APPENDIX	157
TABLE OF RESULTS ON CLOSURE OPERATIONS	161
BIBLIOGRAPHY	163
INDEX	169