

## Contents

Preface	ix
Sponsors	xi
Marcel Herzog	xiii
Bibliography of Marcel Herzog	xv
Conference Program	xxi
List of participants	xxiii
The history of the classification of finite groups with a CC-subgroup ZVI ARAD and WOLFGANG HERFORT	1
Structure of finite $p$ -groups with given subgroups YAKOV BERKOVICH and ZVONIMIR JANKO	13
Lower bounds for the number of conjugacy classes in finite groups EDWARD A. BERTRAM	95
Monounary simple algebras MARIAGRAZIA BIANCHI, ANNA GILLIO, and LIBERO VERARDI	119
Algebras with positive bases, commutators and covering numbers DAVID CHILLAG	133
On certain group theoretical properties generalizing commutativity COSTANTINO DELIZIA and CHIARA NICOTERA	143
Probabilistic non-generators in profinite groups ELOISA DETOMI and ANDREA LUCCHINI	149
Limits of vertex-transitive graphs MICHAEL GIUDICI, CAI HENG LI, CHERYL E. PRAEGER, ÁKOS SERESS, and VLADIMIR TROFIMOV	159
Group rings with simple augmentation ideals RÜDIGER GÖBEL and OTTO H. KEGEL	171
On the number of commutators in groups MARCEL HERZOG, PATRIZIA LONGOBARDI, and MERCEDE MAJ	181
New results in the theory of finite 2-groups ZVONIMIR JANKO	193

The existence of normal and characteristic subgroups in finite groups GIL KAPLAN	197
On the covering numbers of finite groups: Some old and new results ARIEH LEV	201
Normal subgroups in the subgroup lattices of finite $p$ -groups MARIO MAINARDIS	211
On characters-classes duality and orders of centralizers AVINOAM MANN	215
Bijections for identities of multisets of hook numbers AMITAI REGEV	219
Hall subgroups of finite groups DANILO O. REVIN and EVGENII P. VDOVIN	229