Preface

International Journal of Group Theory (IJGT) is a publication of University of Isfahan in English. The main scope of IJGT is devoted to Group Theory – a branch of Algebra. The journal publishes research papers in Group Theory after peer-reviewing. IJGT will be published both electronically and in print. Each volume of IJGT has four issues which are published in March, June, September and December of each year in print. The electronic version is published as soon as it is ready.

IJGT has an on-line editorial system in http://ijgt.ui.ac.ir/ and authors to submit their papers should first register in the system. During the submission it is asked of the corresponding author (CA) to suggest an editor to handle the paper. CA must care to select one of the editors whose area of interest is the nearest one to the topic of his/her paper.

The editorial board members are from Iran, Turkey, Russia, Japan, Canada, Brazil, USA, Germany, Italy, UK, Hungary, Scotland, Spain and South Africa. On behalf of University of Isfahan, I thank them for agreeing to serve on board.

I thank Ms. Rabeach-Sadat Mousavifard for her editorial assistance.

Alireza Abdollahi
Editor-in-Chief
Preface
of
Ischia Group Theory 2018

In 2018 the Conference “Ischia Group Theory” was held in Ischia (Naples, Italy) for the eighth time, from March 19th to March 23rd.

Again the group theory community showed great interest in this event, that occurs regularly on even years since 2004.

In 2018 the number of participants was over 130 from 25 countries.

This volume contains the Proceedings of the Conference.

The scientific committee included Mariagrazia BIANCHI (Università di Milano), Patrizia LONGOBARDI (Università di Salerno), Mercede MAJ (Università di Salerno), Carlo Maria SCOPPOLA (Università dell’Aquila).

The local organizing committee, at Università di Salerno, consisted of Costantino DELIZIA, Carmine MONETTA, Chiara NICOTERA, Marialaura NOCE, Antonio TORTORA, Maria TOTA.

The main speakers and many other participants contributed the papers that form this volume, on a variety of different topics in finite and infinite group theory, like conjugacy classes in finite groups, probabilistic results, pro-p-groups, generalizations of normal subgroups, generating sets, normalizers and centralizers, Catalan words.

These Proceedings also contain a list of all the participants, and a list of all the talks.

On the first day an interesting poster session was presented. It remained open through the whole Conference.

The memory of our late colleagues M. Suzuki, K. Doerk and V. Fedri was honoured by dedicating to them the second, third and fourth day of the Conference, respectively.

Through the years we all became acquainted with the perfect efficiency of the organization provided by the team of the University of Salerno. Everything went on smoothly and pleasantly, hiding the enormous amount of work they went through. We are very grateful to them.

Thanks are also due to all the speakers, for their interesting talks, and to all participants, who contributed to create once more the typical atmosphere of the Ischia Conferences, relaxed and concentrated at the same time.

We also thank the Authors of the interesting papers that form these Proceedings, and the Referees who selected them so thoroughly.

We thank the Staff of the Grand Hotel delle Terme Re Ferdinando: their courtesy and patience contributed greatly to the success of the Conference.

Our Sponsors are listed in the next page, and they deserve a very special thank, for offering to us the chance to organize once more this wonderful Conference.

The Editors
Mariagrazia BIANCHI, Patrizia LONGOBARDI, Mercede MAJ, Carlo Maria SCOPPOLA
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of
Ischia Group Theory 2018

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Agenda

MONDAY, MARCH 19

15.00 Registration

16.00 Opening permanent Poster Session

- A. Bier
- Y. Contreras Rojas
- D.S. da Silveira
- E. Di Domenico
- M. Ferrara, M. Trombetti
- S. Gul
- S. Hatui
- A. Kondratev, V. Trofimov
- T.K. Naik
- A. Olivieri
- P. Slanina

18.30 Welcome Cocktail
TUESDAY, MARCH 20
dedicated to the memory of Michio Suzuki

9.10 Welcome Greetings
9.20 Some Memories

Chairman: Jack Sonn

9.30 G. GLAUBERMAN
Symmetric groups and fixed points modules

10.05 A. MANN
Probabilistic identities in finite groups

10.50 V. BOVDI
Algebras whose group of units is hyperbolic

11.05 Coffee break

Chairman: Lino Di Martino

11.30 R. L. GRIESS JR.
Integral forms in vertex operator algebras

12.05 D. J. S. ROBINSON
Metanilpotent groups satisfying the minimal condition for normal subgroups

12.40 M. HERZOG
Two criteria for solvability of finite groups

13.20 Lunch break

Chairman: Rex Dark

15.00 M. KUZUCUOĞLU
Regular direct limits of symmetric groups

15.35 O. H. KEGEL
O. Ore’s 1951 question: is every element of a non-abelian simple group a commutator

16.10 C. ACCIARRI
Graphs encoding the generating properties of a finite group

16.25 C. MONETTA
On the nilpotency of the verbal subgroup corresponding to the Engel word

16.40 Coffee break

Chairman: Waldemar Holubowski

17.05 F. DE GIOVANNI
Large subgroups in infinite groups

17.40 A. ZALESSKI
Steinberg-like characters for non-abelian simple groups

18.15 P. SHUMYATSKY
On conciseness of words in residually finite groups

21.30 Recital of classical Neapolitan songs
WEDNESDAY, MARCH 21
dedicated to the memory of Klaus Doerk

9.10 Some Memories

Chairman: Felix Leinen

10.00 R. ESTEBAN-ROMERO
The number of maximal subgroups and probabilistic generations of finite groups

10.50 U. DARDANO
Groups with restrictions on subgroups which are not commensurable with a normal subgroup

11.00 Coffee break

Chairman: Ted Hurley

11.30 C. E. PRAEGER
Composition lengths of finite groups

12.05 D. SEGAL
On groups of finite upper rank

12.40 L.-C. KAPPE
A GAP-conjecture and its solution: isomorphism classes of capable special $p$-groups of rank 2

13.15 Picture

13.20 Lunch break

Chairman: Martin Newell

15.00 J. WILSON
Model theory for finite groups

15.35 A. LUCCHINI
The expected number of random elements to generate a finite group

16.10 F. W. PASINI
Koszul property in Galois cohomology

16.25 R. HAFEZIEH
Regular bipartite divisor graphs

16.40 Coffee break

Chairman: Paolo Papi

17.05 A. TURULL
Characters of finite groups and $p$-adic numbers

17.40 Y. SEGEV
Half axes in power associative algebras

18.15 G. A. FERNÁNDEZ-ALCOBER
Some results regarding outer commutator words

18.50 R. SHWARTZ
A canonical form and exchange laws for the symmetric group $S_n$
THURSDAY, MARCH 22

dedicated to the memory of Valeria Fedri

9.30 Social trip: bus tour of Ischia

13.20 Lunch break

15.00 Some Memories

Chairman: Luigi Serena

15.15 A. CARANTI
Involutions in multiple holomorphs of groups

15.50 M. L. LEWIS
Semi-extraspecial groups with an abelian subgroup of maximal possible order

16.25 D. BUBBOLONI
Asymptotic linear bounds for the normal covering number of the symmetric groups

16.40 Coffee break

Chairman: Chiara Tamburini

17.05 H. HEINEKEN
Finite groups and their breadth

17.40 G. TRAUSTASON
Left 3-Engel elements in groups

18.05 C. PARKER
Identifying groups with a large $p$-subgroup

18.05 K. LORENSEN
Random walks on virtually solvable minimax groups
FRIDAY, MARCH 23

Chairman: Anatoly Kondratyev
9.10 A. YU. OLSHANSKIY
Polynomially-bounded Dehn functions of groups
9.45 E. ALJADEFF
Groups gradings of finite dimensional division algebras
10.30 M. ZORDAN
Representation growth of special linear groups
10.45 D. MALININ
On the arithmetic of integral representations of finite groups
11.00 Coffee break

Chairman: Michel Coornaert
11.30 L. A. KURDACHENKO
Infinite-dimensional Leibniz algebras in the spirit of infinite group theory
12.05 E. KHUKHRO
Almost Engel compact groups
12.40 W. HERFORT
Free profinite products of finite soluble groups
13.20 Lunch break

Chairman: Peter P. Palfy
15.00 B. KLOPSCH
Hausdorff spectra of finitely generated pro-$p$ groups
15.35 N. VAVILOV
Subnormal subgroups of Chevalley groups, revisited
16.10 M. GARONZI
On the number of cyclic subgroups of a finite group
16.25 S. E. STONEHEWER
Small 4-quasinormal subgroups
19.00 Concert of Baroque music
20.30 Social dinner
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