

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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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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