

Research Article

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The Strong Sylow Theorem for the Prime p in Simple Locally Finite Groups – De Luxe Edition – February 2026 Issue

Felix F. Flemisch

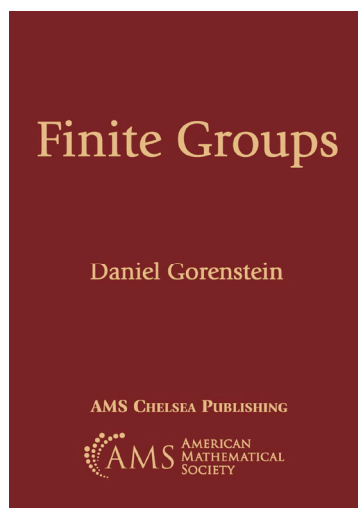
Mitterweg 4e, 82211 Herrsching a. Ammersee, Bavaria, Germany

ABSTRACT

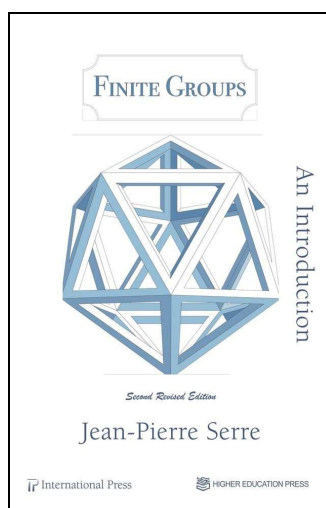
This **JMCA Research Article** extends the wonderfully beautiful **JMCA Research Article** “The Strong Sylow Theorem for the Prime p in Simple Locally Finite Groups” (see <https://www.onlinescientificresearch.com/articles/the-strong-sylow-theorem-for-the-prime-p-in-simple-locally-finite-groups.pdf>) from 71 pages to 226 pages by adding **Pages i to viii, -1 to -24, 72 to 266, and ix to x** (see **Page v**).

Pages i to -24 start with this Abstract and then gladly honour Prof. Otto H. Kegel’s beautiful paper [44], thereby explaining its relationship to its main result and to the **71-pages Research Article**, and commenting on its final considerations. They then give an overview of the **226-pages Research Article**, including some venues, the Front Cover and a Table of Contents, and explain in great detail the relationships of the **71-pages Research Article** to JMCA and to the Ischia Group Theory (IGT) 2024 Conference and to its upcoming Proceedings, centred around the **Talk** given by the author at the Conference on April 11, the 120th birthday of Prof. Philip Hall. They then present a **List of ten Open Issues** most of which the author has solved already in yet unpublished work and describe the **Issues of the De Luxe Edition**. After remembering **Rudi Schuricke**’s magnificent **Florentinische Nächte** and the author’s wedding, they close with a **Table of Contents of the Pages 1 to 266** which are contained in the **May 2025 Issue**.

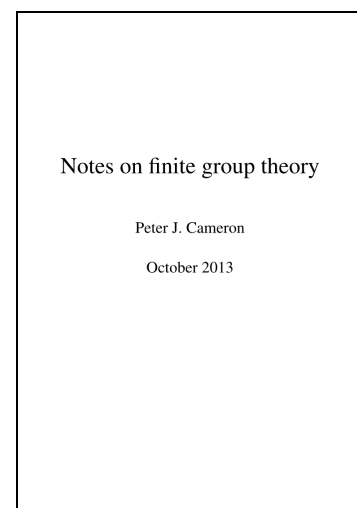
We nevertheless summarise the contents of **Pages 72 to x**. They start with a dedication to **Helga** (see **Page 15**), continue with the PowerPoint Presentation at IGT 2024, honour Ludvig M. Sylow, the discoverer and explorer of Sylow Theory, recall that Ischia was twice an Artist Colony, remember Philip Hall’s and Graham Higman’s very fundamental paper “On the p -Length of p -Soluble Groups and Reduction Theorems for Burnside’s Problem” thereby well explaining its relationship to the **71-pages Research Article**, recall Some Historicals on Group Theory, in particular Philip Hall’s unpublished hand-written Lecture Notes on Group Theory and show these beautiful Lecture Notes completely on the 148 Pages 103 to 250, show a presentation of WIKIPEDIA’s Classification of finite simple groups, remember Prof. Kegel and Prof. Hall at the famous Mathematisches Forschungsinstitut Oberwolfach (MFO), and finally as a great Back Cover refer to Philip Hall’s Archive at the London Mathematical Society and again to his Lecture Notes, and close by showing Who is Felix F. Flemisch & Another Abstract of the **71-pages Research Article**.



<https://bookstore.ams.org/chel-301.h>
2nd edition 1980, 519 pages (see [22])



<https://intlpress.com/BDetail?from=book&id=1726537209895026690>
2nd edition 2022, 192 pages
<https://www.irishmathsoc.org/bull81/Murray.pdf>



<https://webpace.maths.qmul.ac.uk/p.j.cameron/notes/gt.pdf>
2013, 103 pages (see also [6])

*Corresponding author

Felix F. Flemisch, Mitterweg 4e, 82211 Herrsching a. Ammersee, Bavaria, Germany. ORCID: <https://orcid.org/0000-0003-1612-8810>.

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Four lectures on Sylow theory in locally finite groups

O.H. Kegel

The AGTA **Research Paper** [15] “Characterising Locally Finite Groups Satisfying the Strong Sylow Theorem for the Prime p ” and the JMCA **Research Article** “The Strong Sylow Theorem for the Prime p in Simple Locally Finite Groups” (see [doi.org/10.47363/JMCA/2025\(4\)198](https://doi.org/10.47363/JMCA/2025(4)198)) are both based on this **beautiful** paper [44] by Prof. Otto H. Kegel each one proving a conjecture of it: the AGTA paper answers the question on page 10 and the JMCA paper finds a proof for the “inspection” of (2.4) Theorem on page 13 both being centred around the gay concept of a **p -uniqueness subgroup** which is a finite p -subgroup being contained in a unique Sylow p -subgroup. We show the main result of Kegel’s paper and comment his final considerations. See also our comments on **Page 3** and **Page 4**.

Introduction

In their wording some theorems about finite groups also make sense for infinite groups; however, since there are counter examples, most of them cannot be proved. Narrowing down the class of groups considered more theorems of finite origin will become provable. In general, assuming the validity of some theorem about finite groups for some infinite group is a strong finiteness condition, and one might wonder what other finiteness conditions may be deduced from it. A good class in which to study such phenomena is the class of locally finite groups, i.e. the class of those groups in which every finite set of elements generates a finite subgroup.

The basic result on finite groups is the *Sylow Theorem* stating that for a fixed prime p the maximal p -subgroups of a finite group G are conjugate in G . This statement makes sense in arbitrary groups, but it is false in general, as we shall see even in locally finite groups. We shall refer to the discussion of the validity of the Sylow Theorem for the prime p or some variation or generalisation of it in some class of infinite groups as *Sylow Theory*. More than anyone else, Brian Hartley has contributed to Sylow Theory in locally finite groups. If not only in the locally finite group G itself, but also in every subgroup of G , the maximal p -subgroups are conjugate we shall say that G satisfies the *strong Sylow Theorem* for the prime p . For locally finite, locally p -soluble groups satisfying the strong Sylow Theorem for the prime p Hartley exhibited in [10] a very strong finiteness property, if $p \neq 2$. An extension of a weak form of Hartley’s finiteness result is

If for the prime $p \geq 5$ the locally finite group G satisfies the strong Sylow Theorem then there is a finite series of normal subgroups N_i of G with

$$G = N_0 \supseteq \dots \supseteq N_i \supseteq N_{i+1} \supseteq \dots \supseteq N_k = \langle 1 \rangle$$

such that the factors N_i/N_{i+1} of this series are either a direct product of finitely many linear simple groups or locally p -soluble.

Hartley’s result allows one to refine the series so that the locally p -soluble factors N_i/N_{i+1} are either p -groups or p' -groups.

It is this result that I want to explain in these lectures. I hope that on the way the audience will get a few glimpses of the landscape of locally finite groups in general and of the importance that definite results in the theory of finite groups may have for the theory of locally finite groups. Occasionally, questions on finite groups have been motivated by possible applications to locally finite groups.

Prof. Kegel then presents his four lectures on Sylow theory in locally finite groups

Lecture I : Variations on Sylow's Theorem

Lecture II : Singular p -subgroups and simple locally finite groups

Lecture III : The study of crucial configurations

Lecture IV : The strong finiteness results

which culminate in a detailed refinement of the result from **Page ii**:

(4.4) Theorem. *If the locally finite group G satisfies the strong Sylow Theorem for the prime $p \geq 5$, then there are characteristic subgroups*

$$\langle 1 \rangle \subseteq \mathbf{O}_p(G) \subseteq \mathbf{O}_{p,p'}(G) \subseteq \mathbf{O}_{p,p',p}(G) \subseteq \mathbf{S}_p(G) \subseteq S \subseteq A \subseteq P \subseteq G$$

such that $S/\mathbf{S}_p(G) = \text{soc}(G/\mathbf{S}_p(G))$ is a direct product of finitely many locally finite simple linear groups, A/S is an abelian group of rank bounded by the number of simple direct factors of $S/\mathbf{S}_p(G)$, the factor group P/A is a finite soluble group of order bounded by the number and a function of the types of the simple direct factors of $S/\mathbf{S}_p(G)$, and the factor group G/P permutes these direct factors faithfully. If none of the characteristics of the underlying locally finite fields of the infinite simple direct factors of $S/\mathbf{S}_p(G)$ is p , then the factor group $G/\mathbf{O}_p(G)$ satisfies the minimum condition for p -subgroups. In any case, the factor group $G/\mathbf{O}_{p,p',p}(G)$ is countable.

Here $\mathbf{S}_p(G)$ denotes the largest normal locally p -soluble subgroup of G .

Making a suitable definition for the p -length of the group $S/\mathbf{S}_p(G)$ – possibly simply the number of simple direct p -perfect factors – one gets that with this extended notion of p -length the locally finite group G satisfying the strong Sylow Theorem for the prime $p \geq 5$ will have finite p -length.

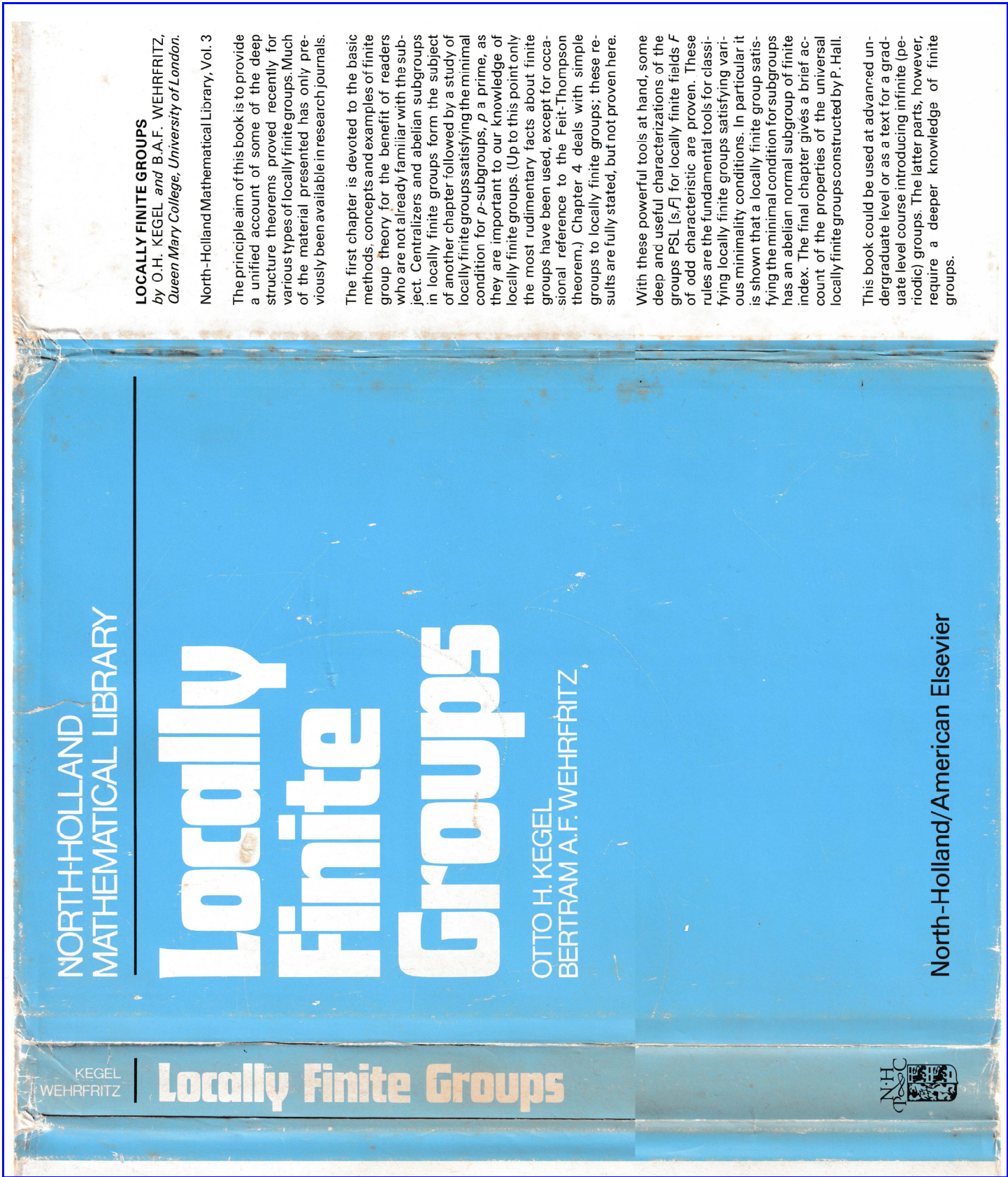
The author has defined in unpublished work for every prime p such a generalised p -length for locally finite groups which is finite if and only if they satisfy the strong Sylow Theorem for p .

It seems desirable to remove the restrictions on the prime p in the above result. This would mean finding an argument in the finite soluble case to prove a qualitative result like (2.1) and finding a rather different argument to prove (3.5) which might use different properties of finite simple groups.

The qualitative result like (2.1) is **Conjecture 3** (see **Pages 9, 12, 13 and 100**). Making a revision of Kegel's (3.5) Theorem thereby relating it to rarely known articles, the author was able to extend Kegel's (4.4) Theorem to the case $p = 3$ without using special properties of finite simple groups. Note also that our results for simple groups are valid for all primes p .

Acknowledgements. For the presentation of these ideas I am indebted to the efforts of my former student Felix Flemisch. – B. Hartley pointed out an embarrassing error in Lecture III.

The author learned **Locally Finite Group Theory** in the 1970ies through the **beautiful** book [43] and in the 1980ies through personal education by Prof. Otto H. Kegel in the course of developing this paper [44]:



The Strong Sylow Theorem for the Prime p in Simple Locally Finite Groups – De Luxe Edition – February 2026 Issue

This 226-pages JMCA **Research Article** extends the pioneering and trailblazing 71-pages JMCA **Research Article** “The Strong Sylow Theorem for the Prime p in Simple Locally Finite Groups” (see under <https://www.onlinescientificresearch.com/journal-of-mathematical-computer-applications-old-articles.php?journal=jmca&v=4&i=1&y=2025&m=February> & <https://www.onlinescientificresearch.com/articles/the-strong-sylow-theorem-for-the-prime-p-in-simple-locally-finite-groups.pdf> & **Page 1 to Page 71**), by its smart **Abstract** (see <https://www.onlinescientificresearch.com/abstract/the-strong-sylow-theorem-for-the-prime-p-in-simple-locally-finite-groups-6110.html> & **Page -12 and Page -13**) and its fine **PowerPoint Presentation** (see https://www.srscscholarsmedia.com/powerpoint-presentations.php?page_no=1 & <https://www.srscscholarsmedia.com/ppt-article/talk-by-dipl-math-felix-f-flemisch-m-sc-bacc-math-at-ischia-group-theory-2024-igt-2024-50.html> & **Page 73 to Page 84**) and a **great lot more** (see **Page -1**) thereby applying not the consecutive page numbering 1 to 226 but a page numbering which keeps the numbering 1 to 71 for the 71-pages Research Article and allows for pages which include two original pages (Pages i to viii, -1 to -24, 1 to 71, 72 to 266, and ix to x):

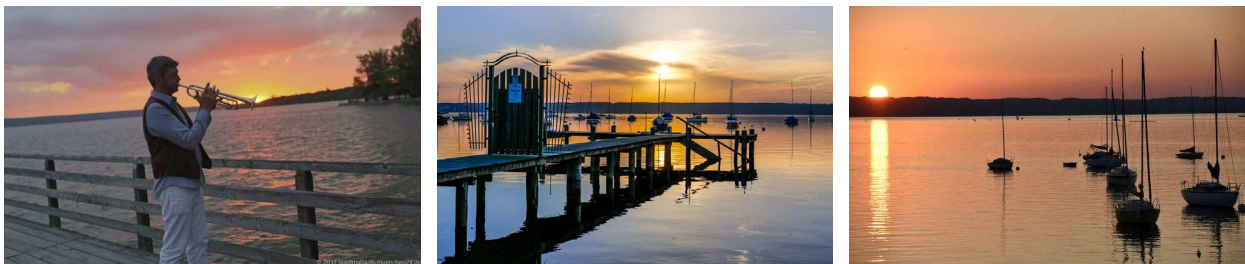
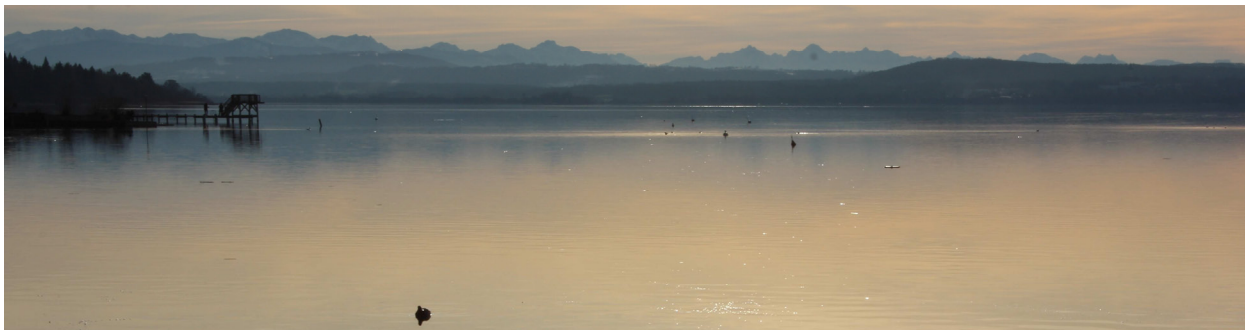
- Front Cover front – The Strong Sylow Theorem for the Prime p in Simple Locally Finite Groups & Professor Otto H. Kegel on the occasion of his 90th birthday on July 20th, 2024 & Talk on the 120th birthday of Professor Philip Hall & The Periodic Table Of Finite Simple Groups (February 2026 Issue)
- Front Cover back – MÉMOIRE Sur le Nombre des Valeurs qu’une Fonction peut acquérir, lorsqu’on y permute de toutes les manières possibles les quantités qu’elle renferme
- Internet appearance of IGT 2024 (only Home, Agenda and Proceedings)
- Scientific and Organizing Committees of IGT 2024 & Editorial Board of the IGT 2024 Proceedings
- Submissions for the IGT 2024 Conference Proceedings
- JMCA Volume 4, Issue 1 Articles
- Abstract of the 71-pages Research Article “The Strong Sylow Theorem for the Prime p in Simple Locally Finite Groups”
- The IGT 2024 Conference Proceedings (February 2026 Issue)
- List of Open Issues
- Issues of the De Luxe Edition
- Rudi Schuricke – Florentinische Nächte
- The Pages 1 to 266
- Back Cover front – Philip Hall Archive & Lecture Notes on Group Theory
- Back Cover back – Who is Felix F. Flemisch and Research Article Summary



Ischia – Castello Aragonese



Ischia – Sant'Angelo (see Page 96 and Page 97)

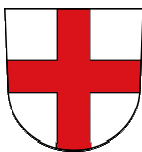
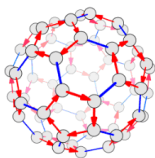


At the wonderfully beautiful Lake Ammersee in Bavaria 😊

Long live Group Theory and in particular Sylow Theory



of Locally Finite Groups!



Vi Gruppentheorie Studium München Freiburg i.Br. Florenz Herrsching a.A. Gauting

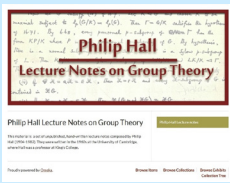
Dipl.-Math. Felix F. Flemisch, M.Sc., Bacc.Math.

The Strong Sylow Theorem for the Prime p in Simple Locally Finite Groups – De Luxe Edition

February 2026 Issue

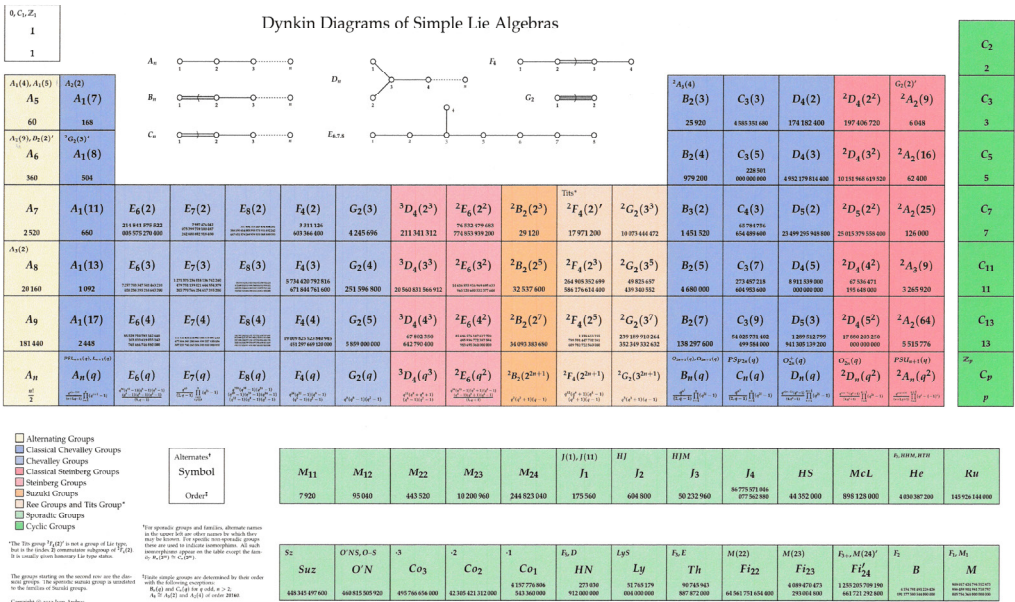


Dedicated to **Professor Otto H. Kegel** on the occasion of his **90th birthday** on **July 20th** – Ischia Group Theory 2024 from April 8 to April 13
Talk presented at IGT 2024 on Thursday, **April 11th**, that is, on the

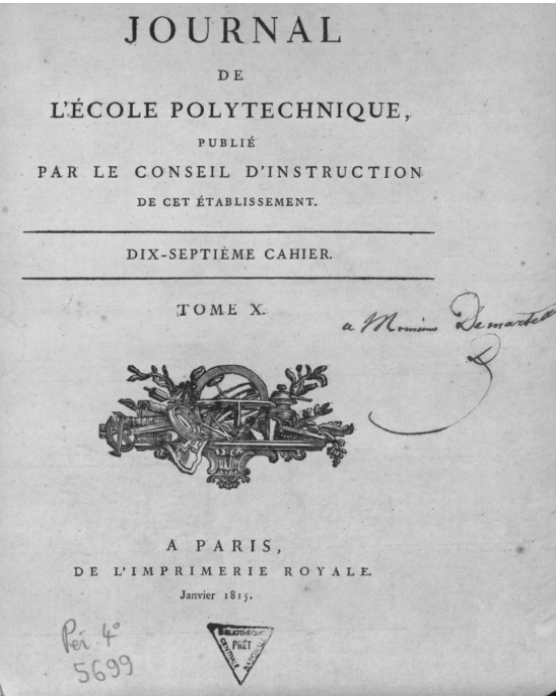


120th birthday of **Professor Philip Hall**

The Periodic Table Of Finite Simple Groups



The family $\mathcal{T}$ of types of known finite simple groups $\{ \text{abelian}_p, \underline{A}^n, A = \text{PSL}_n, B = \text{P}\Omega_{\text{odd } n}, C = \text{PSp}_n, D = \text{P}\Omega_{\text{even } n}, {}^2A = \text{PSU}_n, {}^2D = \text{P}\Omega_{\text{even } n}^-, E_6, E_7, E_8, F_4, G_2, {}^2B_2, {}^3D_4, {}^2E_6, {}^2F_4, {}^2G_2, \text{sporadic}_\star \}$ is beautiful.
It contains 18 infinite families and one finite family:
the abelian groups, seven rank-unbounded infinite families,
ten infinite families with a fixed rank, and 26 sporadic groups.



JOURNAL
DE L'ÉCOLE POLYTECHNIQUE.

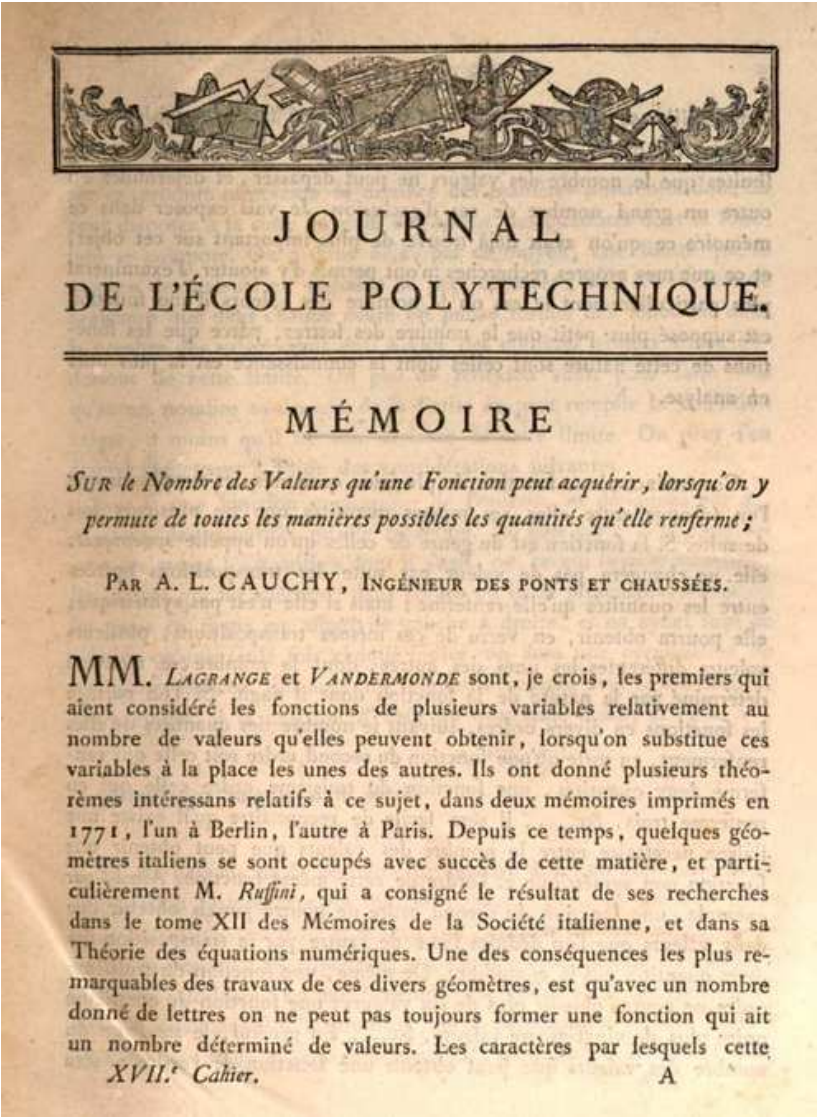
MÉMOIRE

Sur le Nombre des Valeurs qu'une Fonction peut acquérir, lorsqu'on y permute de toutes les manières possibles les quantités qu'elle renferme ;

PAR A. L. CAUCHY, INGÉNIEUR DES PONTS ET CHAUSSEES.

MM. LAGRANGE et VANDERMONDE sont, je crois, les premiers qui aient considéré les fonctions de plusieurs variables relativement au nombre de valeurs qu'elles peuvent obtenir, lorsqu'on substitue ces variables à la place les unes des autres. Ils ont donné plusieurs théorèmes intéressans relatifs à ce sujet, dans deux mémoires imprimés en 1771, l'un à Berlin, l'autre à Paris. Depuis ce temps, quelques géomètres italiens se sont occupés avec succès de cette matière, et particulièrement M. Ruffini, qui a consigné le résultat de ses recherches dans le tome XII des Mémoires de la Société italienne, et dans sa Théorie des équations numériques. Une des conséquences les plus remarquables des travaux de ces divers géomètres, est qu'avec un nombre donné de lettres on ne peut pas toujours former une fonction qui ait un nombre déterminé de valeurs. Les caractères par lesquels cette

XVII.^e Cahier.



MÉMOIRE *Sur le Nombre des Valeurs qu'une Fonction peut acquérir, lorsqu'on y permute de toutes les manières possibles les quantités qu'elle renferme ;*

PAR A. L. CAUCHY, INGÉNIEUR DES PONTS ET CHAUSSEES.
JOURNAL DE L'ÉCOLE POLYTECHNIQUE, XVII.^e Cahier, Tome dixième, Janvier 1815, 1-28

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IGT 2024 Home (see <https://sites.google.com/unisa.it/igt/home>)

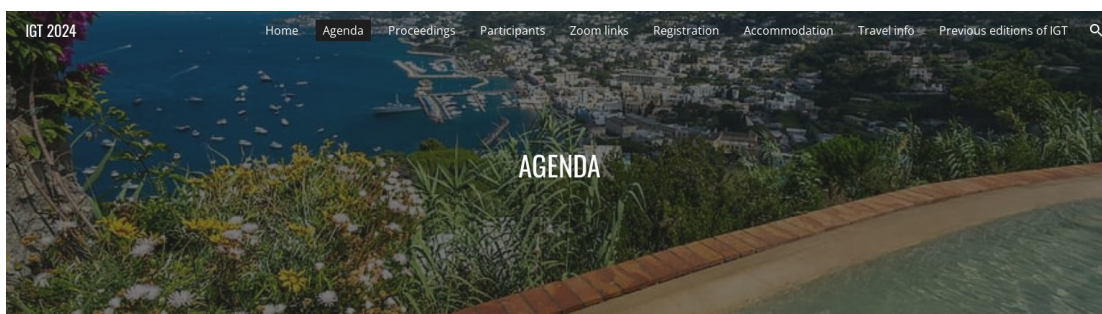


A Conference on Group Theory will be held at "Grand Hotel delle Terme Re Ferdinando", in Ischia (Naples, Italy), from Monday, **April 8th**, to Saturday, **April 13th, 2024**. The meeting will start with a Welcome Cocktail and the opening of the permanent poster session on Monday, April 8th, in the late afternoon. Talks will begin on Tuesday, April 9th, in the morning and conclude on Friday, April 12th, in the late afternoon.

The social programme will also include a Recital of Classical Neapolitan Songs on Tuesday evening, a Concert of Baroque music for flute and cello on Wednesday evening ([link](#)), the Social Trip to Mortella Gardens on Thursday morning, and the Conference Dinner on Friday evening.

This edition of Ischia Group Theory is **in honour of Otto H. Kegel** on the occasion of his **90th birthday**, to celebrate his significant role in the international landscape of Group Theory and his fundamental contribution to the Ischia Group Theory conference series.

IGT 2024 Agenda (see <https://sites.google.com/unisa.it/igt/agenda>)



MONDAY, APRIL 8th

15.00 Registration

16.00 Opening permanent Poster Session

18.30 Welcome Cocktail

TUESDAY, APRIL 9th

9.10 Welcome greetings

9.20 Chairman: Dieter Kilsch

9.25 Mahmut Kuzucuoğlu

Uniqueness of κ -existentially closed groups

10.10 Luise-Charlotte Kappe

On the nonabelian tensor product of cyclic groups of odd order

10.50 Viji Z. Thomas

On the size and the exponent of Schur multiplier of p -groups

11.15 Coffee break

Chairman: Ted Hurley

11.45 Peter J. Cameron

Inverse group theory

12.25 Leonid A. Kurdachenko

Groups and left braces: common approaches, different results

13.00 Lunch break

15.00 Chairman: Andrea Caranti

15.05 Bernhard Amberg

Factorized groups and solubility

15.50 Pavel Shumyatsky

Profinite groups whose elements have prime power order

16.25 Coffee break

Chairman: Tullio Ceccherini Silberstein

16.55 Massimiliano Sala

On $NP=coNP$ and its implications to cryptography and group theory

17.35 Stephen Glasby

Classifying finite groups with 3 automorphism orbits

18.15 Elena Bunina

Bi-interpretability and elementary definability of Chevalley groups

18.40 End Session

21.30 **Recital of classical Neapolitan songs (Sala Aragonese)**

WEDNESDAY, APRIL 10th

9.10 Chairman: Carlo M. Scoppola

9.15 Dan Segal

Axiomatizing groups

10.00 Marston Conder

Soluble quotients of triangle groups

10.40 Evgeny Khukhro

Rank type conditions on commutators in finite groups

11.15 Coffee break

Chairman: Anatolii Tushev

11.45 Benjamin Klopsch

The lower p -series of p -adic analytic pro- p groups and Hausdorff dimension

12.25 Martino Garonzi

On pyramidal groups of prime power degree

12.50 Picture

13.00 Lunch break

15.00 Chairwoman: Rosemary Bailey

15.05 Alexei Stepanov

Nikolai Vavilov and subgroups of Chevalley groups over rings

15.50 Eugene Plotkin

Faces of bounded generation

16.25 Coffee break

Chairman: Tengizi Bokelavadze

16.55 Rostislav I. Grigorchuk

Liftable self-similar groups and scale groups

17.35 Adolfo Ballester-Bolinches

Central nilpotency and solubility of skew left braces

18.15 Natalia Maslova

On Gruenberg–Kegel graphs of finite groups

18.55 Antonio Ioppolo

Groups gradings and graded maps on algebras

19.20 End Session

19.40 **Concert of Baroque music for flute and cello (Chiesa Santa Maria di Portosalvo)**

THURSDAY, APRIL 11th

9.10 Social trip

13.00 Lunch break

15.00 Chairwoman: Daniela Nikolova

15.05 Wolfgang Willems

In memoriam Prof. Dr. Bertram Huppert

15.50 Gustavo A. Fernández-Alcober

Around conciseness

16.30 Thomas M. Keller

Bounding the number of conjugacy classes of a finite group in terms of a prime

16.55 Coffee break

Chairman: Alessio Russo

17.25 Urban Jezernik

Babai's conjecture for classical groups with random generators

18.05 Felix F. Flemisch
The strong Sylow theorem for the prime p in simple locally finite groups
 18.30 End Session

FRIDAY, APRIL 12th

9.10 Chairman: Primož Potočnik
 9.15 Gernot Stroth
Zvonimir Janko and the finite simple groups
 10.00 Eugenio Giannelli
On Sylow branching coefficients
 10.40 Rachel Camina
The Amit and Amit–Ashurst conjectures for finite nilpotent groups
 11.15 Coffee break
Chairman: Paolo Papi
 11.45 Delaram Kahrobaei
Post-quantum Blockchains using hash functions using higher dimensional special linear groups over finite fields as platforms
 12.25 Gunnar Traustason
Some special classes of powerful p -groups
 13.00 Lunch break
 15.00 Chairman: Péter P. Pálfi
 15.05 M. Dolores Pérez-Ramos
Together with Rex and Arny: an adventure in the world of Fitting classes
 15.50 Cindy (Sin Yi) Tsang
Factorizations of groups and skew braces
 16.30 Mark L. Lewis
A lower bound on the size of maximal abelian subgroups
 17.10 Gerard Hiss
The eigenvalue one property of finite groups
 17.50 Closing
 20.30 Social dinner (Sala Aragonesa)

Here you can download all the **Abstracts**:

https://drive.google.com/file/d/1u5veTKR_MzLk5nBvaOqgE0QcBEM1qNl/view.

Here you can download **some Slides of the Talks**:

https://drive.google.com/drive/folders/1WqjFnFJzragVU3A4YqP7hc5_B2FrKXGZ?usp=sharing.



IGT 2024 Proceedings (see <https://sites.google.com/unisa.it/igt/proceedings> and Page -14)

Conference proceedings will be published in the [Springer Proceedings in Mathematics & Statistics](#) (PROMS). The PROMS series and its content are indexed in MathSciNet/MathReview, zbMATH, and Scopus. The submission **deadline** is **January 31, 2025 (23:59 CET)**.

Here you can find more details about the preparation of your article and about the submission.
 Article template: https://drive.google.com/drive/folders/1XQSNITfU6JlhqMse5l4nwaf_UT7wHi_H.
 Link to submit your article: <https://equinocs.springernature.com/service/igt2024>.

If you have any doubt, please contact us: [Patrizia Longobardi](mailto:plongobardi@unisa.it) [plongobardi@unisa.it],
[Carmine Monetta](mailto:cmonetta@unisa.it) [cmonetta@unisa.it] or [Marialaura Noce](mailto:mnoce@unisa.it) [mnoce@unisa.it].



Scientific Committee of IGT 2024 & Organizing Committee of IGT 2024

IGT 2024

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Previous editions of IGT

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Editorial Board (PC Chairs) of the IGT 2024 Proceedings

It consists of the six members of the Scientific Committee of IGT 2024 and two members of the Organizing Committee of IGT 2024, **Carlo M. Scoppola** being the Editor-in-Chief.

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IGT 2024

Your Submissions

IGT 2024 · Ischia Group Theory 2024

Submission closed

Ischia Group Theory 2024 is a Conference on Group Theory held at "Grand Hotel delle Terme Re Ferdinando", in Ischia (Naples, Italy), from Monday, April 8th, to Saturday, April 13th, 2024. The meeting began with a Welcome Cocktail and the opening of the permanent poster session on Monday, April 8th, in the late afternoon. Talks started on Tuesday, April 9th, in the morning and concluded on Friday, April 12th, in the late afternoon.

The social programme also included a Recital of Classical Neapolitan Songs on Tuesday evening, a Concert of Baroque music for flute and cello on Wednesday evening, the Social Trip to Mortella Gardens on Thursday morning, and the Conference Dinner on Friday evening.

This edition of Ischia Group Theory is in honour of Otto H. Kegel on the occasion of his 90th birthday, to celebrate his significant role in the international landscape of Group Theory and his fundamental contribution to the Ischia Group Theory conference series.

Location Ischia (Naples), Italy 8-13 April 2024
URL <https://sites.google.com/unisa.it/igt>

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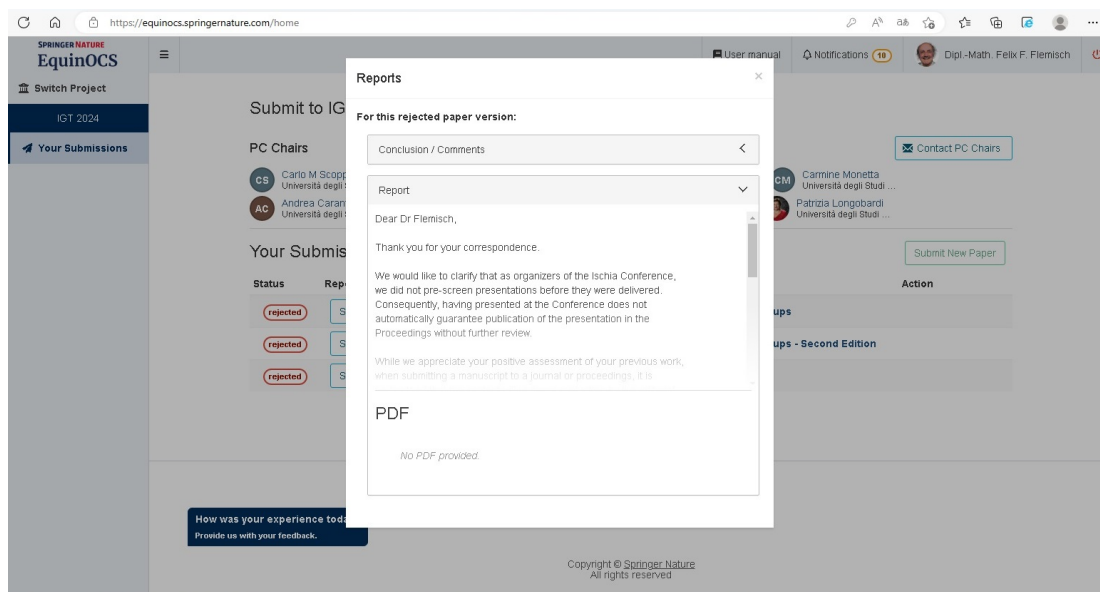
Submissions for the IGT 2024 Conference Proceedings

We submitted three submissions for the IGT 2024 Proceedings. All three were rejected by the Editorial Board.

Reports of the first Submission

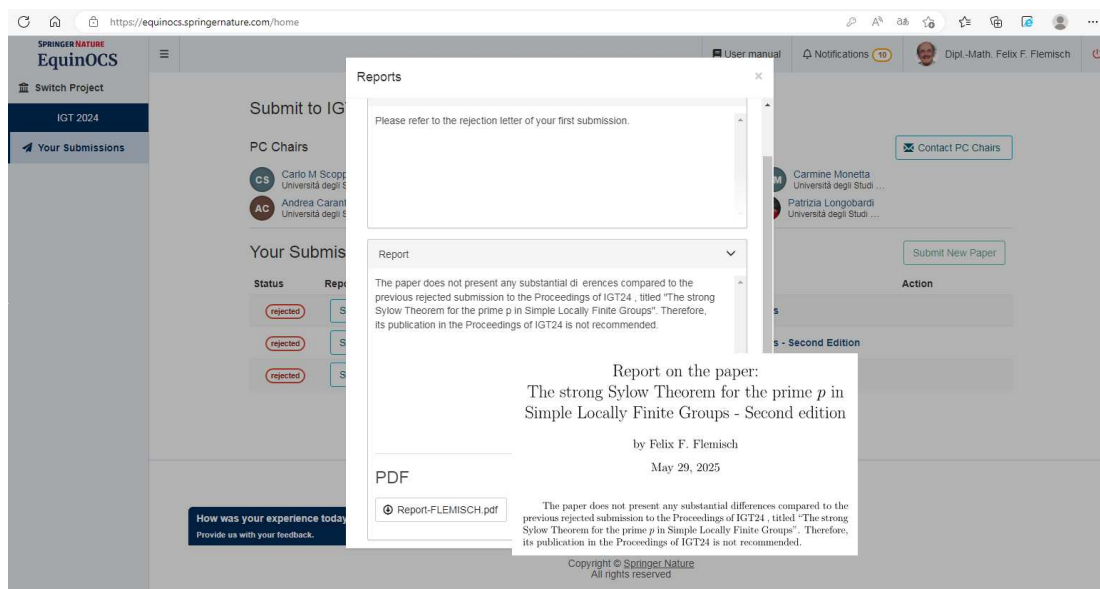
We protested against and even complained about the Rejection not as such but because it ● did not give any reason, ● claimed wrongly to have not pre-screened our presentation so that we are allegedly not entitled to have it published in the Conference Proceedings, ● claimed unjustified (!) that the results presented are not sufficiently significant to warrant inclusion in the Conference Proceedings, and ● did in fact by arrogant and overbearing attitude decide not to send our paper to peer review. The Rejection gets crowned by the incredibly impertinent suggestion to review papers published in reputable journals and proceedings, without being able to quote some of those (!), to assess whether our paper aligns with those standards. Our protest and complaint remained without any reaction by the Editorial Board. We then sent a Reprimand for the Rejection supported by some group theorists. No reaction again ☹ !

Reports of the first Submission again



We nevertheless submitted a **Second Edition** of our very **beautiful** paper where **we corrected all presumed shortcomings** thereby adding even more beauty and **complied fully** with the submission guidelines of Springer's PROMS series (see <https://www.springernature.com/gp/authors>).

Reports of the second Submission

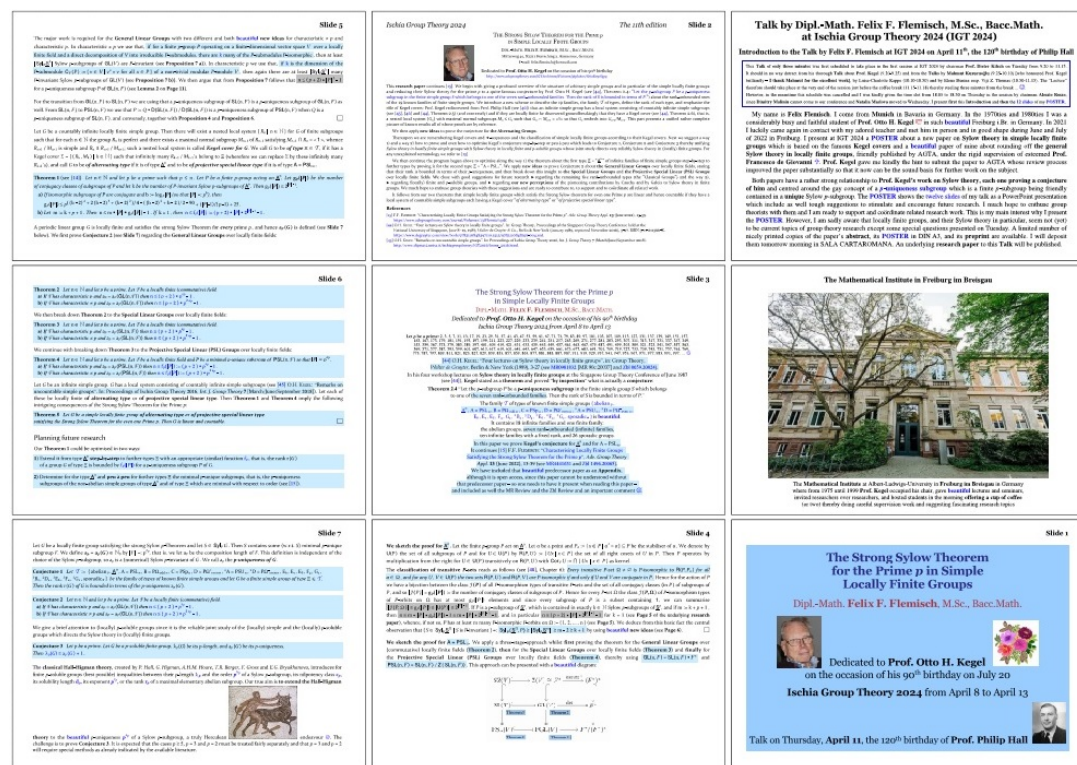


This **Second Edition** was first not even read let alone reviewed but simply rejected with the comment “Please refer to the rejection letter of your first submission.”, a sheer incredible impertinence. Then suddenly on 30 June 2025 the **mendacious Report** shown appeared. This is not a good cooperation We presented the paper in a **Talk** at the IGT 2024 (see Page -4 and Page 74) and then submitted an **Abstract** (see Page 57) to be included at https://drive.google.com/file/d/1u5veTKR_MzLlk5nByaOqqE0QcBEM1qNl/view (see Page -4). But the Committees did not include it nor did they include us in the list of **Main Speakers** (see <https://sites.google.com/unisa.it/igt/home>).

Since we did not receive any reaction at all by the Editorial Board of IGT 2024 again, we reworked the **Second Edition** from Springer's PROMS format to the format for a submission for the Persian **International Journal of Group Theory (IJGT)** including translation to ghastly LaTeX. They made a slovenly review of the first few pages, claimed wrongly that it has been published before (see Page 7), and rejected it without giving reasons as well instead of requiring an update. We submitted nevertheless a **Third Edition** which remained without any reaction ☹.

Our trial to submit that **Third Edition** to the subject class **math.GR** (Group Theory) at **arXiv** (see <https://arxiv.org/archive/math>) failed since **no Group Theorist at all**, who is a qualified arXiv submitter, was willing to endorse us.

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Volume 5(2): -9-24

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Review Article

A New Matrix Decomposition Method for Inverting the Comrade Matrix

Author(s): B. Talibi*, A. Aiat Hladj and D. Sarsri

Published Date: 2025-02-04

View Abstract

View/Download PDF

DOI: [doi.org/10.47363/JMCA/2025\(4\)200](https://doi.org/10.47363/JMCA/2025(4)200)

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J Mathe & Comp Appli, 2026

Volume 5(2): -11-24

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Abstract of the following Research Article

[illegible]

Detecting Peripheral Neuropathy in Patients with Diabetes, Prediabetes and other High-Risk Conditions: An Advanced Practice Nurse's Perspective

An Analysis of Peripheral Neuropathy Symptom Characteristics in HIV

Overview of Neurotrauma and Sensory Loss

A mobile app providing individually-tailored psychoeducation about sleep for older adults with chronic health conditions and low health literacy

We then continue the program begun above to optimise along the way 1) the theorem about the first type $\Xi = "A^{p^n}"$ of infinite families of finite simple groups step-by-step to further types by proving it for the second type $\Xi = "A = PSL_n"$. We apply new ideas to prove Conjecture 2 about the General Linear Groups over locally finite fields, stating that their rank is bounded in terms of their p -uniqueness, and then break down this insight to the Special Linear Groups and to the Projective Special Linear (PSL) Groups over locally finite fields. We close with good suggestions for future research ▶ regarding the remaining rank-unbounded types (the "Classical Groups") and the way 2), ▶ regarding (locally) finite and p -soluble groups, and ▶ regarding Cauchy's and Galois' contributions to Sylow theory in finite groups. We much hope to enthuse group theorists with these suggestions and are ready to support and to coordinate all related work.

It follows from our two theorems that simple locally finite groups which satisfy the Strong Sylow theorem for even one Prime p are linear and hence countable if they have a local system of countable simple subgroups each having a Kegel cover "of alternating type" or "of projective special linear type".

We include the beautiful predecessor Research Article [15] as the First Appendix for good reasons. This Research Article had been presented as a slideshow in a Talk at IGT 2024 on April 11. We include its 16 slides as the Second Appendix. Slide 1 to Slide 12 had been permanently instated during IGT 2024 as a Permanent Poster.

The Research Article consists of the following seventeen beautiful Chapters:

- Sketch of proof for $A \stackrel{u}{=} \Psi_{ST}$: ● Sketch of proof for $A = \Psi_{ST}$: ① Introduction, ② Proof of Theorem 1; ③ About Kegel covers; ④ Planning future research – Part 1; ⑤ Proof of Theorem 2;
- ⑥ Proof of Theorem 3, ⑦ Proof of Theorem 4; ⑧ Planning future research – Part 2;
- ⑨ The First Trilogy and The Second Trilogy and their reviews: ● Acknowledgements;
- Postscript, Luciano De Crescenzo, Felix F. Flemisch, Conflicts of Interest, Pablo Picasso's *La Joie de vivre*;
- About the author in Munich, in Freiburg i.Br., in London, in Weiden i.d.OPf., and in Florence in Tuscany in Italy;
- 75 References; ● Appendix 1 – Reference [15] with MR Review and Zbl Review;
- Appendix 2 – Talk by Felix F. Flemisch at Ischia Group Theory 2024.

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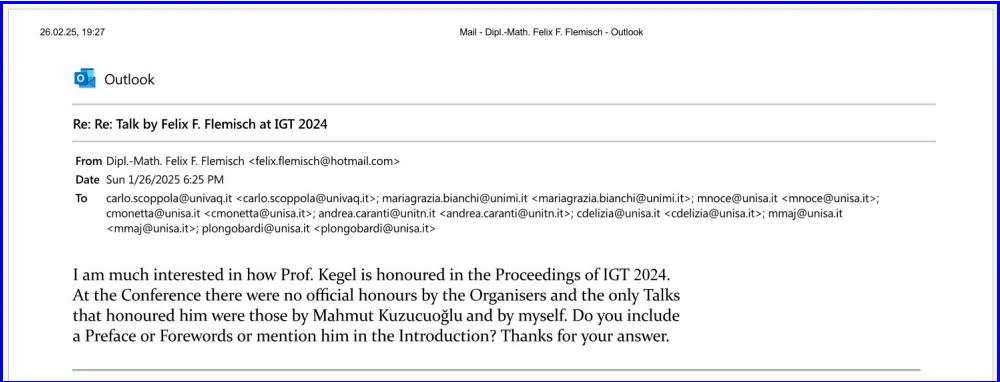
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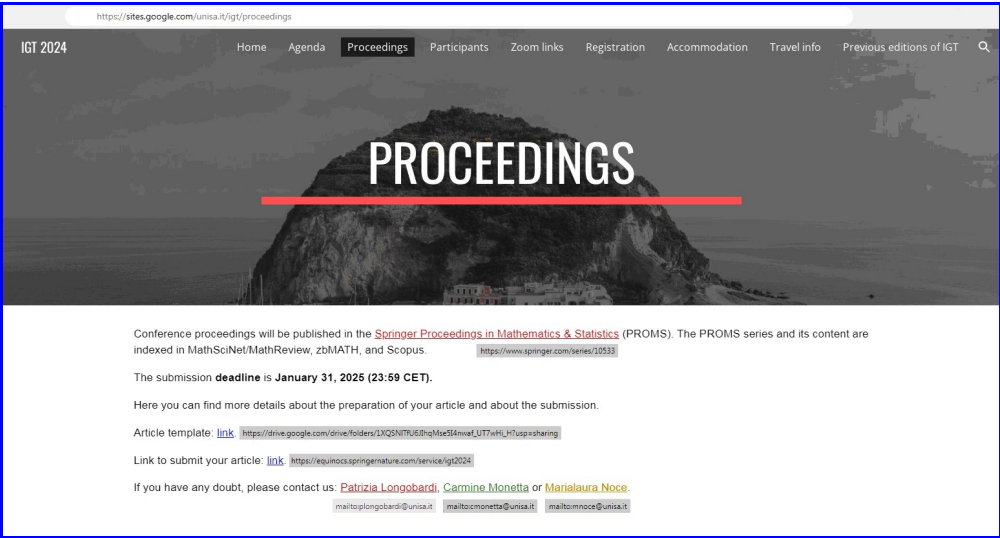
The IGT 2024 Conference Proceedings

Since IGT 2024 is dedicated to Prof. Otto H. Kegel on the occasion of his 90th birthday **on 20 July 2024**, we asked the Editorial Board twice how he is honoured in the Conference Proceedings:

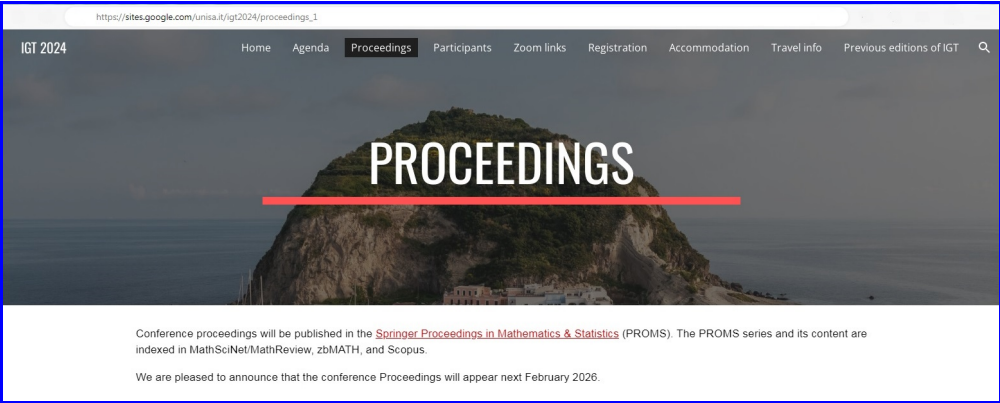


We did not get any answer Hence we shall be able to answer our question ourselves only after publication of the IGT 2024 Conference Proceedings in **June 2026** (!) (see Page -17 and Page -18).

The publication of the IGT 2024 Conference Proceedings has been announced since **mid of December 2024** at the Web page <https://sites.google.com/unisa.it/igt/proceedings> (see also Page -4):

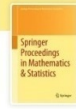


After the deadline this Web page was maintained for many months. We asked **on 12 May 2025** for the publication date: “According to <https://sites.google.com/unisa.it/igt/proceedings> the deadline for the IGT 2024 Conference Proceedings was **31 January 2025**. When do you plan to publish the Proceedings at <https://www.springer.com/series/10533> ?” and got the answer: “The volume is not yet ready, we are still waiting for some reports. I hope it will be published before Summer, but I am not sure.” **On 17 October 2025**, that is 118 days after beginning of Summer **on 21 June 2025** and 25 days after beginning of Autumn **on 22 September 2025**, the Web page changed to https://sites.google.com/unisa.it/igt/proceedings_1:



At long last on **13 February 2026**, please believe it or not, appeared the publication announcement at <https://www.springer.com/series/10533> as promised already in **December 2024**:

<https://link.springer.com/series/10533>

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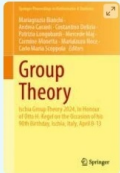
Group Theory
Ischia Group Theory 2024, In Honour of Otto H. Kegel on the Occasion of his 90th Birthday, Ischia, Italy, April 8-13
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MSJ-KMS Joint Meeting, Sendai, Japan, September 19, 2023
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Group Theory

Ischia Group Theory 2024, In Honour of Otto H. Kegel on the Occasion of his 90th Birthday, Ischia, Italy, April 8–13
Conference proceedings | Jun 2026
Latest edition

ⓘ [Accessibility Information](#)

Overview

Editors: Mariagrazia Bianchi, Andrea Caranti, Costantino Delizia, Patrizia Longobardi, Mercedes Maj, Carmine Monetta, Marialaura Noce, Carlo Maria Scoppola

- Contains recent contributions to an important research field
- Offers an up-to date perspective on the recent developments of the topic
- Opens some key connections to other mainstream research topics (e.g., braces, radical rings)

Part of the book series: [Springer Proceedings in Mathematics & Statistics](#) (PROMS, volume 543)

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About this book

This book brings together a collection of research articles by leading experts in group theory, alongside accessible survey papers highlighting recent developments in the field. The contributions provide a broad overview of the diverse themes, methods, and applications that characterize contemporary research in group theory.

The topics covered include combinatorial and geometric group theory, with attention to varieties, braces, twisted conjugacy classes, and sofic groups; the structural analysis of infinite groups, such as existentially closed groups; and the study of finite groups, encompassing p -groups and maximal subgroups, the generation of simple groups, permutation groups, representations of finite groups, and graphs associated with groups.

The work is addressed to researchers in the field.

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Group Theory and Generalizations

Editors and Affiliations

Dipartimento di Matematica, Università degli Studi di Milano, Milano, Italy
Mariagrazia Bianchi

Dipartimento di Matematica, Università degli Studi di Trento, Trento, Italy
Andrea Caranti

Dipartimento di Matematica, Università degli Studi di Salerno, Fisciano, Italy
Costantino Delizia, Patrizia Longobardi, Mercede Maj, Carmine Monetta

Dipartimento di Informatica, Università degli Studi di Salerno, Fisciano, Italy
Marialaura Noce

DISIM, Università degli Studi dell'Aquila, L'Aquila, Italy
Carlo Maria Scoppola

About the editors

Mariagrazia Bianchi is an associate professor of Algebra at University of Milan, Italy. Her research interests include finite group theory, graphs associated with groups, and character theory.

Andrea Caranti is an emeritus professor of Algebra at University of Trento, Italy. His research interests include group theory, finite p -groups; graded, modular Lie algebras; and skew braces.

Costantino Delizia is a full professor of Algebra at University of Salerno, Italy. His research interests include finite and infinite group theory, combinatorial group theory, graphs associated with groups.

Patrizia Longobardi is a full professor of Algebra at University of Salerno, Italy. Her research interests include finite and infinite group theory and combinatorial group theory.

Mercede Maj is a full professor of Algebra at University of Salerno, Italy. Her research interests include finite and infinite group theory and combinatorial group theory.

Carmine Monetta is a researcher in Algebra at University of Salerno, Italy. His research interests include finite and infinite group theory, combinatorial group theory, graphs associated with groups, and group-based cryptography.

Marialaura Noce is a researcher in Algebra at University of Salerno, Italy. Her research interests include groups of automorphisms of trees, group-based cryptography, and combinatorial group theory.

Carlo Maria Scoppola is an emeritus professor of Algebra at University of L'Aquila, Italy. His research interests include group theory and representation theory.

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Book Subtitle

Ischia Group Theory 2024, In Honour of Otto H. Kegel on the Occasion of his 90th Birthday, Ischia, Italy, April 8–13

Editors

Mariagrazia Bianchi, Andrea Caranti, Costantino Delizia, Patrizia Longobardi, Mercede Maj, Carmine Monetta, ... Carlo Maria Scoppola

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After publication of the IGT 2024 Conference Proceedings we shall not only answer our question from Page -14 but also provide quite a number of comments (see Page -17, Page -18 and Page -19).

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J Mathe & Comp Appl, 2026

Volume 5(2): -17-24

Had our submissions to the IGT 2024 Proceedings been well accepted (see Pages -6 ff.), we could have presented them with the shown Front Cover and Basic Information about the IGT 2024 Conference:

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Volume xyz

Carlo Maria Scoppola
Andrea Caranti
Patrizia Longobardi
Carmine Monetta

Mariagrazia Bianchi
Costantino Delizia
Mercede Maj
Maria Laura Noce

Editors

Ischia Group Theory 2024

Ischia off Naples in Italy at Grand Hotel delle Terme Re Ferdinando,
from Monday, April 8, to Saturday, April 13

The Strong Sylow Theorem for the Prime p
in Simple Locally Finite Groups

Felix F. Flemisch



Dedicated to Prof. Otto H. Kegel on the occasion of his 90th birthday
on July 20th, 2024 – Ischia Group Theory 2024 from April 8th to April 13th
Talk presented at IGT 2024 on Thursday, April 11th, 2024, from 18.05 to 18.30.



that is, on the 120th birthday of Prof. Philip Hall
(see <https://mathshistory.st-andrews.ac.uk/Biographies/Hall/>)

Felix F. Flemisch (✉)
Mitterweg 4e, 82211 Herrsching a. Ammersee, Bavaria, Germany
e-mail: felix.flemisch@hotmail.com

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Carlo Maria Scoppola et al. (eds.), Ischia Group Theory 2024,
Springer Proceedings in Mathematics & Statistics xyz,
<https://doi.org/10.1007/978-3-abc-defgh-i>

ISCHIA GROUP THEORY 2024



Ischia (Naples, Italy)
April, 8th – 13th
<https://sites.google.com/unisa.it/igt>

It is a great pleasure for us to present the Conference “Ischia Group Theory 2024”, an important periodic appointment for the Group Theory international community, held in Ischia (Naples, Italy) at “Grand Hotel delle Terme Re Ferdinando”. The meeting will consist of Talks given by invited speakers and a great permanent Poster Session. The social programme will include the Welcome Cocktail on Monday late afternoon, a Recital of Classical Neapolitan Songs on Tuesday evening, a beautiful Concert of Baroque music for flute and cello on Wednesday evening, a Social Trip to Mortella Gardens on Thursday morning, and the Conference Dinner on Friday evening.

This 11th edition of Ischia Group Theory will be in honour of Otto H. Kegel on the occasion of his 90th birthday, to celebrate his significant rôle in the international landscape of Group Theory and his many fundamental contributions to the Ischia Group Theory Conference series.

The great Scientific Committee is formed by Mariagrazia Bianchi (Università di Milano), Andrea Caranti (Università di Trento), Costantino Delizia (Università di Salerno), Patrizia Longobardi (Università di Salerno), Mercede Maj (Università di Salerno) and esteemed Carlo Maria Scoppola (Università dell’Aquila), while the great Organising Committee consists of Federico di Concilio (Università di Salerno), Michele Gaeta (Università di Salerno), Mikel Eguzki Garciarena-Perez (Università di Salerno & University of the Basque Country, Italy & Spain), Valentina Grazian (Università di Salerno), Carmine Monetta (Università di Salerno), Chiara Nicotera (Università di Salerno), Maria Laura Noce (Università di Salerno), Carmela Sica (Universidade Federal da Bahia, Brazil), Antonio Tortora (Università della Campania “Luigi Vanvitelli”), Maria Tota (Università di Salerno) and Martina Vigorito (Università di Salerno).

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Comments on and Annotations to the IGT 2024 Conference Proceedings

1 This section can be written not until the IGT 2024 Conference Proceedings were published which will
2 happen, believe it or not, on 22 June 2026, that is two years and two months after the conference ... ☹.

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List of Open Issues

This Research Article contains the following **List of Open Issues** most of which (OI 1, OI 2, OI 3, OI 4, OI 5, OI 8, OI 9) the author has solved already in unpublished (draft and partly German) work:

- **OI 1** Extend Theorems 2, 3 and 4 to the remaining Locally Finite Classical Groups (i.e., the **Symplectic, Unitary, Orthogonal in char $\neq 2$ and Orthogonal in char 2 Groups**).
- **OI 2** Summarise the work by **B. Hartley** and **A. Rae** regarding λ_p and p^{ap} and the foregoing work on the classical **Hall-Higman** theory regarding λ_p and p^{bp} , c_p , d_p , p^{cp} and r_p by **P. Hall, G. Higman, A.H.M. Hoare, T.R. Berger, F. Gross, E.G. Bryukhanova** and **A. Turull**.
- **OI 3** Let p be a prime. Let G be a p -soluble finite group, $\lambda_p(G)$ be its p -length, and $a_p(G)$ be its p -uniqueness (see Page 37 of [15]). Then (best possible) $\lambda_p(G) \leq a_p(G) + 1$.
- **OI 4** Deduce the three rectangles/tableaux of Page 13, shown again below, and use them to prove **Lagrange's** theorem and **Cauchy's** concealed second and third group theorems:

complete right transversal for G in H	the first row consists of all elements z_k of G ($1 \leq k \leq M$) acting on H in the following rows via multiplication from the left by their inverses				correspondence	$\text{set}_H \text{Orbi}(G) := G \setminus H$ of all orbits of H under G acting by left translation
$t_1 := 1 =: z_1$	z_2	z_3	...	z_M	$\leftrightarrow$	$G = {}_1 \text{Orb}(G)$
t_2	$z_2 t_2$	$z_3 t_2$	...	$z_M t_2$	$\leftrightarrow$	$G t_2 = {}_{t_2} \text{Orb}(G)$
t_3	$z_2 t_3$	$z_3 t_3$	...	$z_M t_3$	$\leftrightarrow$	$G t_3 = {}_{t_3} \text{Orb}(G)$
...	...	...	...	...	...	...
t_R	$z_2 t_R$	$z_3 t_R$	...	$z_M t_R$	$\leftrightarrow$	$G t_R = {}_{t_R} \text{Orb}(G)$

rectangle $|G| \times [H:G]$ of elements

set of certain orbits of H under G acting by left translation	the first row consists of all right cosets Gx_1^k of G in H ($0 \leq k \leq p-1$) with the powers of some p -blank x_1 of G in H ; the following rows consist of right cosets of G in H with the powers of left conjugates of x_1				correspondence	$X := \langle x_1 \rangle$; set of all orbits of H under $G \cup X$, the simultaneous actions of G by left translation and of X by right translation
$Gx_1^0 t_1 = G$	Gx_1	Gx_1^2	...	Gx_1^{p-1}	$\leftrightarrow$	cosets $G \langle x_1 \rangle = GX$ = double coset $G 1 X$
$Gx_2^0 t_2 = G t_2$	$Gx_2 t_2$	$Gx_2^2 t_2$	...	$Gx_2^{p-1} t_2$	$\leftrightarrow$	cosets $G \langle x_2 \rangle t_2$ = double coset $G t_2 X$
$Gx_3^0 t_3 = G t_3$	$Gx_3 t_3$	$Gx_3^2 t_3$	...	$Gx_3^{p-1} t_3$	$\leftrightarrow$	cosets $G \langle x_3 \rangle t_3$ = double coset $G t_3 X$
...	...	...	...	...	...	...
$Gx_S^0 t_S = G t_S$	$Gx_S t_S$	$Gx_S^2 t_S$	...	$Gx_S^{p-1} t_S$	$\leftrightarrow$	cosets $G \langle x_S \rangle t_S$ = double coset $G t_S X$

tableau $p \times [H:G] / p$ of cosets

set of certain orbits of H under G acting by left translation	the first row consists of all right cosets Gx_{1c} of G in H ($0 \leq c \leq H _p - 1$) with the elements of some Sylow p -subgroup X of H , all of whose elements of order p are p -blanks of G in H ; the following rows consist of right cosets of G in H with the elements of left conjugates of X				correspondence	$ X = H _p = p^b$; set of all orbits of H under $G \cup X$, the simultaneous actions of G by left translation and of X by right translation
$Gx_{10}t_1 = G$	Gx_{11}	Gx_{12}	...	Gx_{1p^b-1}	$\leftrightarrow$	cosets $G\{x_{1c} \mid 0 \leq c \leq p^b-1\} = GX = \text{double coset } G \wr X$
$Gx_{20}t_2 = Gt_2$	$Gx_{21}t_2$	$Gx_{22}t_2$	...	$Gx_{2p^b-1}t_2$	$\leftrightarrow$	cosets $G\{x_{2c} \mid 0 \leq c \leq p^b-1\}t_2 = \text{double coset } Gt_2X$
$Gx_{30}t_3 = Gt_3$	$Gx_{31}t_3$	$Gx_{32}t_3$	...	$Gx_{3p^b-1}t_3$	$\leftrightarrow$	cosets $G\{x_{3c} \mid 0 \leq c \leq p^b-1\}t_3 = \text{double coset } Gt_3X$
...	...	...	...	...	...	...
$Gx_{T0}t_T = Gt_T$	$Gx_{T1}t_T$	$Gx_{T2}t_T$	...	$Gx_{Tp^b-1}t_T$	$\leftrightarrow$	cosets $G\{x_{Tc} \mid 0 \leq c \leq p^b-1\}t_T = \text{double coset } Gt_TX$

rectangle $|H|_p \times [H:G] / |H|_p$ of cosets

- **OI 5** Deduce **Cauchy's** fundamental theorem of 1812/1815 from $[H:\langle x \rangle] \geq |G|$, if x is a **p -blank of G in H** , that is, an element of H of order p with $x \notin G$.
- **OI 6** Determine all the (minimal) p -uniqueness subgroups for the known finite simple groups and their natural overgroups, the symmetric and the linear groups, and for the (locally) p -soluble groups, distinguishing $p \geq 5$, $p = 3$ and $p = 2$.
- **OI 7** Specify for a finite group the relationships of **the properties** of its p -subgroups which are **minimal** (w.r.t. order or w.r.t. inclusion) w.r.t. being contained in a unique Sylow p -subgroup to **the properties** (e.g., conjugacy) of its p -subgroups which are **maximal** w.r.t. being contained in a (unique) Sylow p -subgroup (i.e., its Sylow p -subgroups).
- **OI 8** Introduce for every prime p a generalised p -length for locally finite groups which is finite if and only if they satisfy the strong Sylow Theorem for p .
- **OI 9** Making a revision of **Kegel's** (3.5) Theorem [44] thereby relating it to rarely known articles, extend **Kegel's** (4.4) Theorem [44] to the case $p = 3$.
- **OI 10** Summarise **Kegel's** wonderful Sylow paper [44] thereby integrating **first** the AGTA paper (see <https://www.advgrouptheory.com/journal/Volumes/13/Flemisch.pdf>) and **secondly** the JMCA paper (see <https://www.onlinescientificresearch.com/articles/the-strong-sylow-theorem-for-the-prime-p-in-simple-locally-finite-groups--de-luxe-edition.pdf>) and extending **thirdly** his main Theorem (4.4) (see Page iii) to $p = 3$ and $p = 2$ by using the Open Issues OI 9 and OI 3.

Issues of the De Luxe Edition

This is the **February 2026 Issue** of the **De Luxe Edition** being characterised by the announcement of the IGT 2024 Conference Proceedings but not yet the proceedings themselves. This issue and future issues consist of updates only of Page -1 to Page -24 and also the eighth-page Front Cover and possibly the Back Cover, that is, of 34+-pages documents, and for **Page 1 to Page 266 all the De Luxe Editions will refer to the basic May 2025 Issue**, since the **Research Article**, its **Abstract** and its **PowerPoint Presentation**, as published by JMCA, do not change. We show the **Table of Contents** of the Pages 1 to 266 below.

However, this is most likely and sadly **the last but one issue** of the De Luxe Edition. We will publish, as promised, another one after publication of the IGT 2024 Conference Proceedings in June 2026 with the comments and annotations to the conference proceedings of Page -18 and Page -19. But this will be, most likely, **our bye-bye publication on Sylow theory in locally finite groups**. We would still have pleasure in advising and supporting any brave colleague who is ready to solve one or more of the open issues, but we will not develop own contributions in the near future. We finally thank all colleagues who have supported us in our developments over the past years. **Long (and forever) live Group Theory and let us heart ❤️ it!**



Rudi Schuricke – Florentinische Nächte

(siehe <https://www.lyrix.at/t/rudi-schuricke-florentinische-nachte-fdb>)

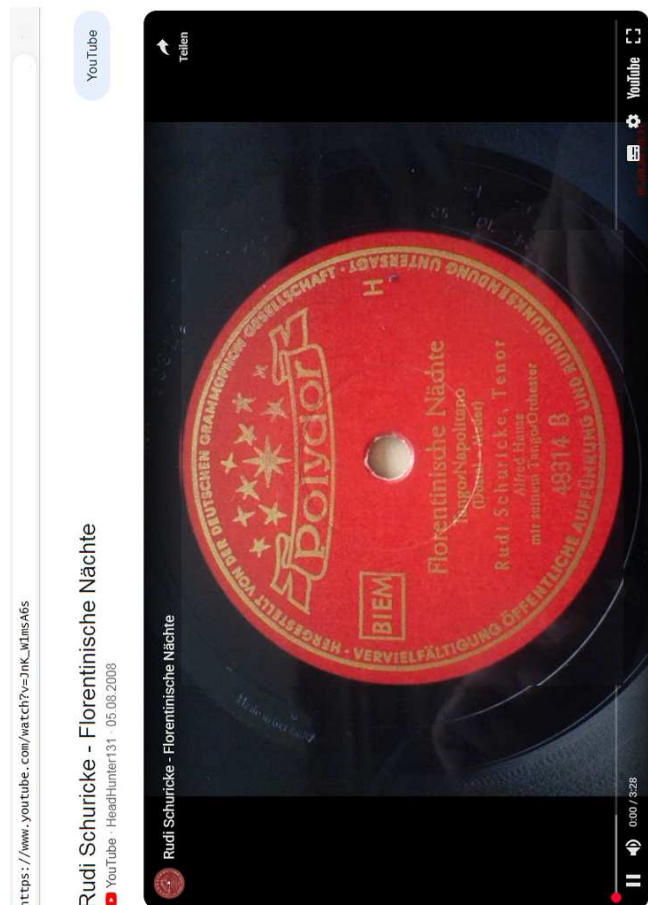
Künstler Rudi Schuricke
Titel Florentinische Nächte (1948)
Typ Liedertext

https://www.youtube.com/watch?v=JnK_W1msA6s

Florentinische Nächte,
ihr bleibt mir im Gedächtnis
als das große Vermächtnis
einer Reise ins Glück.
Ein poetischer Tango,
den ein Mädel gesungen,
ist mir damals erklingen
als die schönste Musik.
Und ich frug, wer sie ist:
Rafaela hieß sie;
und sie hat mich geküßt,
ich vergesse sie nie.
Florentinische Nächte,
du Italia bella,
und auch du, Rafaela,
kommt noch einmal zurück!

Ich seh' im Geist die Schenke vor mir,
hör' den Gesang bei offener Tür,
und trete ein und du singst
tief dich in mein Herz hinein.
Ich küß' im Geist dein nachtschwarzes Haar,
und deiner Augen trauriges Paar,
und durch die Adern strömt dein Blut
wie schwerer roter Wein.

Florentinische Nächte,
ihr bleibt mir im Gedächtnis
als das große Vermächtnis
einer Reise ins Glück.
Ein poetischer Tango,
den ein Mädel gesungen,
ist mir damals erklingen
als die schönste Musik.
Und ich frug wer sie ist:
Rafaela hieß sie;
und sie hat mich geküßt,
ich vergesse sie nie.
Florentinische Nächte,
du Italia bella,
und auch du Rafaela
kommt noch einmal zurück!
O kommt zurück!



Rudi Schuricke
(16. März 1913 bis
28. Dezember 1973)

Capri Fischer (1943)

<https://www.youtube.com/watch?v=CtnAunQkWIIE>

Mit Musik geht alles besser (1943)

<https://www.youtube.com/watch?v=1fM2HJJfoBs>



<https://grammophon-platten.de/page.php?29>

08.10.25, 1900

Florentinische Nächte – Wikipedia

WIKIPEDIA

Die freie Enzyklopädie

Florentinische Nächte

Florentinische Nächte ist ein Schlager aus der Feder von Erich Meder und Nico Dostal, der 1948 von Rudi Schuricke veröffentlicht wurde.

Text

Eine Reise nach Florenz wird besungen – eine „Reise ins Glück“. Rafaela hat den Protagonisten geküsst, worauf er mit „Ich vergesse sie nie“ reagiert. Sein Resümee: „Florentinische Nächte, du Italia bella, und auch du, Rafaela, komm‘ noch einmal zurück!“

Veröffentlichung

Rudi Schuricke als Originalinterpret veröffentlichte das Lied 1948 als B-Seite der Single *Mandolino – Mandolino* (Polydor, 48314). Gerhard Winkler und Ralph Maria Siegel hatten *Mandolino – Mandolino* geschrieben.^[1] 1954 wurde das Lied auf dem gleichnamigen Extended-Play-Album mit den Liedern *Auf Wiedersehen*, *Frauen und Wein* und *Fahr durch die Nacht* veröffentlicht (Polydor, EPH 20 003).^[2] In den Niederlanden veröffentlichte Schuricke das Lied als A-Seite; hier befand sich auf der B-Seite das Lied *Warum weinst du, kleine Tamara*.^[3]

Coverversionen (Auswahl)

- Michael Vanmeren & Geschwister Lechner (1950er-Jahre)
- Orchester Body Buser (Instrumental, 1950)
- Bob Scholte met Koor en Orkest o.l.v. Emile Deltour (*Florentijnse nachten*, Niederländisch, 1951)
- Peter van Os met Orkest Jean Laheye (*Florentijnse nachten*, Niederländisch, 1951)
- Adolf Wreege mit seinem Orchester und Peter Manuel & das Sunshine-Quartett (1951)
- Alfred Matschat & das Tango-Orchester des Berliner Rundfunks (Instrumental, 1951)
- Lothar Brüning (1951)
- Rudi Holstetter (1951)
- Vico Torriani & Die Telestars und das Tango Orchester Béia Sanders (1951)
- Vico Torriani & Orchester Cécile Dumont (1951)
- Will Glahé und sein Musette-Orchester (1951)
- Lina Margy – Accompagnement d’Orchestre, direction Jean Faustin (*Les nuits florentines*, Französisch, 1951)
- Nicole Chanly avec Emile Deltour et son Orchestre (*Nuits florentines*, Französisch, 1951)
- Hans-Arno Simon und sein Casino-Sextett (*Schlager-Parade Nr. 1*, Zitat, 1951)
- Teddy Petersen og hans Orkester & Victor Cornelius og kor (*Florentinske nætter*, Dänisch, 1952)
- Pauli Räsänen, (*Florentzen öitä*, Finnisch, 1953)
- Quintin Verdu et son Orchestre de Tangos, (*Nuits florentines*, Instrumental, 1953)

08.10.25, 1900

Florentinische Nächte – Wikipedia

- Alfred Hause und sein Orchester, (*Tango-Favoriten I (1. Teil)*, Zitat, Instrumental, 1953)
- Alfred Hause and his Orchester, (Instrumental, 1960)
- Peter Kraus & Orchester Johannes Fehring, (1961)
- Rudolf Schock & Die Berliner Symphoniker; Leitung: Nico Dostal, (*Florentinische Nächte, ihr bleibt mir im Gedächtnis*, 1964)
- Cherry Wainer, (Instrumental, 1965)
- Topas Quintette, (Instrumental, 1979)
- Ernst Mosch und seine Original-Egerländer-Musikanten, (Instrumental, 1983)
- Gerhard Wendland, (1987)
- Rundfunk-Tanzstreichorchester Berlin, (Instrumental, 1987)

Weblinks

- Axel Mellenthin, Thomas Wagner: *Florentinische Nächte* (1950). (<https://cover.info/de/song/Ru-di-Schuricke-and-Alfred-Hause-mit-seinem-Tango-Orchester-Florentinische-Nachte>) Rudi Schuricke & Alfred Hause mit seinem Tango-Orchester. In: *cover.info*. Abgerufen am 6. April 2023 (deutsch).
- Florentinische Nächte* (<https://hitparade.ch/song/Rudi-Schuricke/Florentinische-Nachte-226128>) Rudi Schuricke. In: *hitparade.ch*. Steffen Hung, abgerufen am 6. April 2023 (Schweizer Hochdeutsch).
- Florentinische Nächte* (<https://www.lyrix.at/t/rudi-schuricke-florentinische-nachte-1db>) Songtext. In: *lyrix.at*. Novatcom Global GmbH, abgerufen am 6. April 2023 (österreichisches Deutsch, Songtext).

Einzelnachweise

- Mandolino – Mandolino / Florentinische Nächte* (<https://www.discogs.com/master/562249>) bei Discogs, abgerufen am 6. April 2023.
- Rudi Schuricke – *Florentinische Nächte* (<https://www.discogs.com/release/6883354>) bei Discogs, abgerufen am 6. April 2023.
- Rudi Schuricke – *Florentinische Nächte* (<https://www.discogs.com/release/14860616>) bei Discogs, abgerufen am 6. April 2023.

Abgerufen von „[https://de.wikipedia.org/w/index.php?title=Florentinische Nächte&oldid=246230166](https://de.wikipedia.org/w/index.php?title=Florentinische_Nächte&oldid=246230166)“

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On the very **11 April 1992** we so blissful happily married the most fabulous and wonderful-ever woman **Helga** in beautiful **Florence** in Tuscany in Italy, which was a memorable marriage celebrated

along with about twenty friends from Weiden i.d.OPf., Munich and Freiburg i.Br. and uniting the most venerable city **Weiden** in **Upper Palatinate** (i.d.OPf.) (**Helga**) with the huge cosmopolitan city **Munich** in **Upper Bavaria** (**Felix**). That was built really for eternity: **Helga** and **Felix** were meant to last forever ❤️.

Helga gewidmet,
die mir so hilfreich zur Seite stand.
In Liebe und großer Dankbarkeit

Dédicacé à *Hélga*,
qui était si précieuse à mes côtés,
avec tout mon amour
et toute ma grande gratitude

Mild und leise wie sie lächelt, wie das Auge hold
sie öffnet – seht ihr's, Freunde? Säh't ihr's nicht?
Immer lichter wie sie leuchtet, Stern-umstrahlet
hoch sich hebt? Seht ihr's nicht? Wie das Herz
ihr mutig schwillt, voll und hehr im Busen
ihr quillt? Wie den Lippen, wonnig mild,
süßer Atem sanft entweht: – Freunde! Seht!
Fühlt und seht ihr's nicht? – höchste Lust!

Richard Wagner: *Tristan und Isolde*; Dritter Aufzug, Dritter Auftritt, "Liebestod"

Aimer un être, c'est accepter de vieillir avec lui. **Albert Camus**
(**Caligula**, Acte IV, Scène 13; p. 90. Barcelone: Éditions Gallimard,
foliopius classiques n° 233, 2019 (et 1944) [ISBN 978-2-07-044659-9].)

-22

J Mathe & Comp Appli, 2026

Volume 5(2): -22-24

The Pages 1 to 266 of the De Luxe Edition of the Research Article “The Strong Sylow Theorem for the Prime p in Simple Locally Finite Groups”

These pages are contained in the **May 2025 Issue** of this Research Article (see under <https://www.onlinescientificresearch.com/journals/jmca/archives/2025/4/3> and <https://www.onlinescientificresearch.com/articles/the-strong-sylow-theorem-for-the-prime-p-in-simple-locally-finite-groups--de-luxe-edition.pdf>).

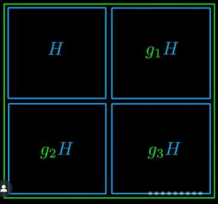
In the following we show their **Table of Contents**:

1– 71	Research Article “ The Strong Sylow Theorem for the Prime p in Simple Locally Finite Groups ” ☺ (see https://www.onlinescientificresearch.com/articles/the-strong-sylow-theorem-for-the-prime-p-in-simple-locally-finite-groups.pdf and https://www.doi.org/10.47363/JMCA/2025(4)198)
72	L’amour immortel, éternel et infini de l’auteur pour Hélga et les mathématiques
73– 84	Talk by Felix F. Flemisch at IGT 2024 – PowerPoint Presentation (see https://www.srscholarsmedia.com/powerpoint-prasentations.php?page_no=1 and https://www.srscholarsmedia.com/ppt-article/talk-by-dipl-math-felix-f-flemisch-m-sc-bacc-math-at-ischia-group-theory-2024-igt-2024--50.html)
85– 95	The Discoverer and Explorer of Sylow Theory
96– 97	Ischia was twice an Artist Colony
98–100	P. HALL – G. HIGMAN: “On the p -Length of p -Soluble Groups and Reduction Theorems for Burnside’s Problem”, <i>Proc. London Math. Soc.</i> (3) 6 (January 1956), 1-42 (see https://londmathsoc.onlinelibrary.wiley.com/toc/1460244x/1956/s3-6/1 and “Collected Works of Philip Hall”, Oxford Science Publications, <i>Oxford University Press</i> (July 1988), ISBN 0-19-853254-7, 349-392)
101	Some Historicals on Group Theory
102–250	Philip Hall’s hand-written Lecture Notes on Group Theory
251–256	About Philip Hall and his beautiful hand-written Lecture Notes on Group Theory
257–260	WIKIPEDIA – Classification of finite simple groups
261–266	Prof. Otto H. Kegel and Prof. Philip Hall at the Mathematisches Forschungsinstitut Oberwolfach (MFO)

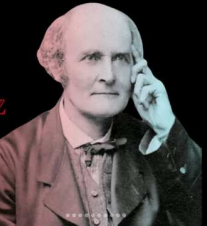
Instagram shows under  quite a number of
Creative Mathematicians (see https://www.instagram.com/creative_math/):

Basic Group Theory $\circ : G \times G \rightarrow G$ $a \circ (b \circ c) = (a \circ b) \circ c$ $g \circ e = e \circ g = g$ $g \circ g^{-1} = g^{-1} \circ g = e$ 	Normal Subgroups $gHg^{-1} = H$ 	Orbit Stabilizer Theorem $ \text{Orb}(x) = \frac{ G }{ \text{Stab}(x) }$ 
---	--	--

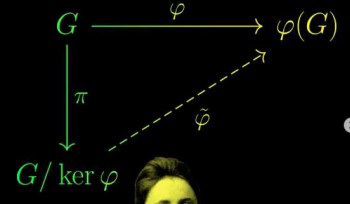
Lagrange's Theorem

$$|G| = [G : H] \cdot |H|$$


Group Isomorphisms

$$\varphi(ab) = \varphi(a)\varphi(b)$$


First Isomorphism



Extremely important!

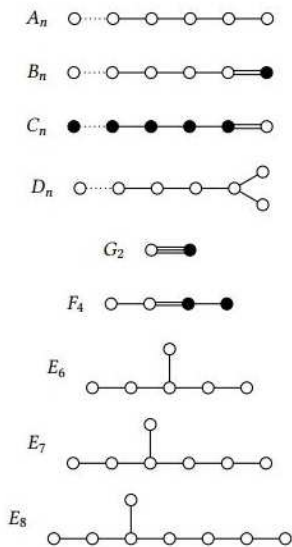


<https://ncatlab.org/nlab/show/classical+Lie+group>

The classification of simple Lie groups contains four infinite series of “classical” simple Lie groups:

- $A_n = \mathrm{SU}(n + 1)$, the special unitary group
- $B_n = \mathrm{SO}(2n + 1)$, the special orthogonal group
- $C_n = \mathrm{Sp}(n)$, the symplectic group
- $D_n = \mathrm{SO}(2n)$, the special orthogonal group

Apart from this there are five exceptional Lie groups.



Classification of all simple groups in terms of Dynkin diagrams.
 $A_n = \mathrm{SU}(n + 1)$, $B_n = \mathrm{SO}(2n + 1)$, $C_n = \mathrm{Sp}(2n)$, $D_n = \mathrm{SO}(2n)$.

Princeton University Press

Books Resources Ideas About

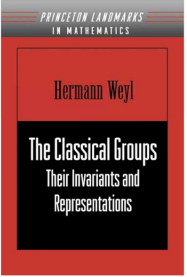
Subjects

Mathematics

The Classical Groups: Their Invariants and Representations

Hermann Weyl

Series: Princeton Mathematical Series
Princeton Landmarks in Mathematics and Physics



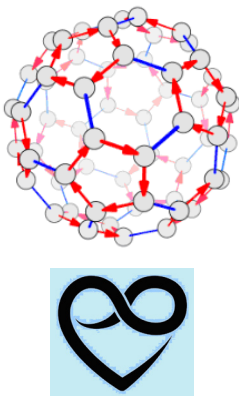
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Copyright: 1946
Pages: 336
Size: 6 x 9.25 in.

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Felix F. Flemisch fairly proudly received his first degree **Bacc.Math.** 🎓 in 1974 from the Albert-Ludwigs-Universität at lovely Freiburg im Breisgau, his postgraduate degree **M.Sc.** 🎓 in 1975 from the honourable University of London, UK, and finally his degree **Dipl.-Math.** 🎓 at marvellous and fabulous Freiburg i.Br. in 1985. From February 1981 until April 1985 he was happily affiliated to the Albert-Ludwigs-Universität Freiburg i.Br., Universitätsklinikum Freiburg, Institut für Medizinische Biometrie und Statistik (IMBI). Since May 1985 he was enthusiastically and with great joy working for the telecom industry. On April 11, 1992, he married beloved **Helga** in beautiful Florence in Tuscany in Italy ❤️. Since October 2016 he is retired and is still resp. is again loving to work on mathematics, in particular on the very beautiful Group Theory 🧮 😊.

Pages i to -24 start with the **Abstract** and then honour Prof. Otto H. Kegel's beautiful paper [44], thereby explaining its relationship to its main result and to the **71-pages Research Article**, and commenting on its final considerations. They then give an overview of the **226-pages Research Article**, including some venues, the Front Cover and a Table of Contents, and explain in great detail the relationships of the **71-pages Research Article** to JMCA and to the Ischia Group Theory (IGT) 2024 Conference and its upcoming Proceedings, centred around the **Talk** given by the author at the Conference on April 11, the 120th birthday of Prof. Philip Hall. They then present a **List of ten Open Issues** most of which the author has solved already in yet unpublished work and describe the **Issues of the De Luxe Edition**. After remembering **Rudi Schuricke – Florentinische Nächte** they close with a **Table of Contents of the Pages 1 to 266** which are contained in the **May 2025 Issue**.

The **Research Article on Pages 1 to 71** continues [15]. We begin with giving a quite profound overview of the structure of arbitrary simple groups and then in particular of the simple locally finite groups and reduce their Sylow theory for the prime p to a rather famous conjecture by **Prof. Otto H. Kegel** (see [44], Theorem 2.4: “Let the p -subgroup P be a p -uniqueness subgroup in the finite simple group S which belongs to one of the seven rank-unbounded families. Then the rank of S is bounded in terms of P .”) about the **rank-unbounded ones** of the 19 known families of finite simple groups. We introduce a **new scheme** to describe the known 19 families, the **family $\mathcal{T}$ of types**, define the **rank** of each type, and emphasise the rôle of **Kegel covers**. This part presents a unified picture of known results all of whose proofs are by reference.

Subsequently we apply **new ideas** to prove the conjecture for the **Alternating Groups**.

Thereupon we are remembering Kegel covers and $\star$ -sequences. Next we suggest some **future research** by stating a **way 1)** and a **way 2)** how to prove and even how to optimise Kegel's conjecture step-by-step or peu à peu which is leading to **Conjecture 1**, to **Conjecture 2** and to **Conjecture 3** thereby unifying *Sylow theory in locally finite simple groups* with *Sylow theory in locally finite and p -soluble groups* whose joint study directs very reliably the Sylow theory in (locally) finite groups. For any unexplained terminology we refer to [15].

We then continue the program begun above to optimise along the **way 1)** the theorem about the **first type** $\Xi = “\underline{A}^n”$ of infinite families of finite simple groups step-by-step to further types by proving it for the **second type** $\Xi = “A = \text{PSL}_n”$. We start with applying **new ideas** to prove **Conjecture 2** about the **General Linear Groups** over (commutative) locally finite fields, stating that their rank is bounded in terms of their p -uniqueness, and then break down this insight to the **Special Linear Groups** and to the **Projective Special Linear (PSL) Groups** over locally finite fields. We close with a number of suggestions for **future research** ► regarding the remaining five rank-unbounded types (the “Classical Groups”) and the **way 2)**, ► regarding (locally) finite and p -soluble groups, and ► regarding Cauchy's and Galois' contributions to Sylow theory in finite groups. We hope to enthuse group theorists with them and are ready to coördinate related work.

We include the beautiful predecessor research paper [15] as **Appendix 1** for good reasons.

The **Research Article** has the following **seventeen beautiful Chapters**:

Sketch of proof for $\underline{A}^n$; **Sketch of proof for $A = \text{PSL}_n$** ; **1 Introduction**; **2 Proof of Theorem 1**; **3 About Kegel covers**; **4 Planning future research – Part 1**; **5 Proof of Theorem 2**; **6 Proof of Theorem 3**; **7 Proof of Theorem 4**; **8 Planning future research – Part 2**; **9 The First Trilogy and The Second Trilogy and their reviews**; **Acknowledgements**; **Postscript, Luciano De Crescenzo, Felix F. Flemisch, Conflicts of Interest, Pablo Picasso's *La Joie de vivre***; **About the author in Munich, in Freiburg i.Br., in London, in Weiden i.d.OPf., and in Florence in Tuscany in Italy**; **75 References**; **Appendix 1 – Reference [15] with MR Review and Zbl Review**; **Appendix 2 – Talk at IGT 2024 on Thursday, April 11, the 120th birthday of Prof. Philip Hall**.

We now summarise the contents of **Pages 72 to x**. They start with a dedication to **Helga** (see **Page 15**), continue with the **PowerPoint Presentation at IGT 2024**, honour **Ludvig M. Sylow**, the discoverer and explorer of Sylow Theory, recall that **Ischia was twice an Artist Colony**, remember Philip Hall's and Graham Higman's very fundamental paper “**On the p -Length of p -Soluble Groups and Reduction Theorems for Burnside's Problem**” thereby well explaining its relationship to the **71-pages Research Article**, recall **Some Historicals on Group Theory**, in particular Philip Hall's **hand-written Lecture Notes on Group Theory** and show these beautiful Lecture Notes, show a presentation of **WIKIPEDIA's Classification of finite simple groups**, remember Prof. Kegel and Prof. Hall at the quite famous **Mathematisches Forschungsinstitut Oberwolfach (MFO)**, and finally as great Back Cover refer to **Philip Hall's Archive** at the London Mathematical Society and again to his Lecture Notes, and close by showing **Who is Felix F. Flemisch** and **Another Abstract** of the **71-pages Research Article**.

