

## REFERENCES

- [1] Jonathan L. Alperin and George Glauberman. *Limits of Abelian Subgroups of Finite  $p$ -Groups*. *Journal of Algebra*, Vol. 203 (1998), Page 533–566.
- [2] Michael Aschbacher. *The Status of the Classification of the Finite Simple Groups*. *Notices of the American Mathematical Society*, Vol. 51, No. 7 (2004), Page 736–740. Available online at <http://www.ams.org/notices/200407/fea-aschbacher.pdf>
- [3] Reinhold Baer. *Groups with Abelian Central Quotient Group*. *Transactions of the American Mathematical Society*, Vol. 44, No. 3 (November 1938), Page 357–386. Available online at <http://www.jstor.org/stable/1989886>
- [4] A. Bak, G. Donadze and N. Inassaridze. *Homology of multiplicative Lie rings*. *Journal of Pure and Applied Algebra*, Vol. 208 (2007), Page 761–777.
- [5] Gilbert Baumslag. *Some aspects of groups with unique roots*. *Acta mathematica*, Vol. 104 (1960), Page 217–303.
- [6] F. R. Beyl. *Isoclinisms of group extensions and the Schur multiplier*. *Groups St. Andrews 1981. London Mathematical Society Lecture Note Series*, Vol. 71, Page 169–185.
- [7] Mitya Boyarchenko and Maria Sabitova. *The orbit method for profinite groups and a  $p$ -adic analogue of Brown’s theorem*. *Israel Journal of Math*, Vol. 165 (2008), Page 67–91. Available on the ArXiv at <http://arxiv.org/abs/math/0608126>
- [8] Ronald Brown and Jean-Louis Loday. *Van Kampen theorems for diagrams of spaces*. *Topology*, Vol. 26, No. 3 (1987), Page 311–335.
- [9] Serena Cicalo, Willem A. de Graaf and M. R. Vaughan-Lee. *An effective version of the Lazard correspondence*. *Journal of Algebra*, Vol. 352 (2012), Page 430–450. Available online at <http://dx.doi.org/10.1016/j.jalgebra.2011.11.031>
- [10] David S. Dummit and Richard M. Foote. *Abstract Algebra*. *John Wiley & Sons* (2003). ISBN 0471433349
- [11] Timothy E. Easterfield. *The orders of products and commutators in prime-power groups*. *Cambridge Philosophical Society*, Vol. 36 (1940), Page 14–26.
- [12] Beno Eckmann, Peter J. Hilton, and Urs Stammbach. *On the homology theory of central group extensions: I - The commutator map and stem extensions*. *Commentarii Mathematici Helvetici*, Vol. 47, No. 1 (1972), Page 102–122.
- [13] Bettina Eick, Max Horn, and Seiran Zandi. *Schur multipliers and the Lazard correspondence*. *Archiv der Mathematik*, Vol. 99 (2012), Page 217–226. Available online at <http://dx.doi.org/10.1007/s00013-012-0426-7>

- [14] Bettina Eick and E. A. O'Brien. *Enumerating  $p$ -groups*. *Journal of the Australian Mathematical Society*, Vol. 67 (1999), Page 191–205.
- [15] Graham Ellis. *The non-abelian tensor product of finite groups is finite*. *Journal of Algebra*, Vol. 111 (1987), Page 203–205. Available online at [http://dx.doi.org/10.1016/0021-8693\(87\)90249-3](http://dx.doi.org/10.1016/0021-8693(87)90249-3)
- [16] Graham Ellis. *A non-abelian tensor product of Lie algebras*. *Glasgow Journal of Math*, Vol. 33 (1991), Page 101–120.
- [17] Graham Ellis. *On five well-known commutator identities*. *Journal of the Australian Mathematical Society*, Vol. 54 (1993), Page 1–19.
- [18] Tuval Foguel and Abraham A. Ungar. *Involutory Decomposition of Groups Into Twisted Subgroups and Subgroups*. Available online at <http://paws.wcu.edu/tsfoguel/inv.pdf>
- [19] George Glauberman. *A partial extension of Lazard's correspondence for finite  $p$ -groups*. *Groups, Geometry, and Dynamics*, Vol. 1, Issue 4 (2007). Available online at <http://dx.doi.org/10.4171/GGD/21>
- [20] George Glauberman, *Abelian subgroups of small index in finite  $p$ -groups*. *Journal of Group Theory*, Vol. 8 (2005), Page 539–560. Available online at <http://dx.doi.org/10.1515/jgth.2005.8.5.539>
- [21] Jon Gonzalez-Sanchez. *Kirillov's orbit method for  $p$ -groups and pro- $p$ -groups*. *Commutative Algebra*, Vol. 37, No. 12 (2009), Page 4476–4488.
- [22] Marshall Hall and James Kuhn Senior. *The groups of order  $2^n$  ( $n \leq 6$ )*.
- [23] Philip Hall. *The classification of prime-power groups*. *Journal für die reine und angewandte Mathematik*, Vol. 69 (1937). Available online at <http://dx.doi.org/10.1515/crll.1940.182.130>
- [24] N. S. Hekster. *On the structure of  $n$ -isoclinism classes of groups*, Vol. 40 (1986), Page 63–85. Available online at [http://dx.doi.org/10.1016/0022-4049\(86\)90030-7](http://dx.doi.org/10.1016/0022-4049(86)90030-7)
- [25] Peter Hilton, Guido Mislin, and Joe Roitberg. *Localization of Nilpotent Groups and Spaces*. *North-Holland Mathematics Studies* (55). American Elsevier (1975). ISBN 0444107762
- [26] I. Martin Isaacs. *Character Theory of Finite Groups*. Dover (2012). ISBN 0486680142
- [27] Rodney James, M. F. Newman, and E. A. O'Brien. *The groups of order 128*. *Journal of Algebra*, Vol. 129, No. 1 (February 1990), Page 136–158. Available online at [http://dx.doi.org/10.1016/0021-8693\(90\)90244-I](http://dx.doi.org/10.1016/0021-8693(90)90244-I).
- [28] Gregory Karpilovsky. *The Schur Multiplier*. Oxford University Press (1987). ISBN 0198535546

- [29] Evgenii I. Khukhro. *p-Automorphisms of Finite p-groups*. Cambridge University Press (1998). ISBN 052159717X
- [30] Michel Lazard. *Sur les groupes nilpotents et les anneaux de Lie*. *Annales scientifiques de l'E.N.S.* Third Series, Vol. 71, No. 2 (1954), Page 101–190.
- [31] C. R. Leedham-Green and Susan McKay. *Baer-invariants, isologism, varietal laws and homology*. *Acta Mathematica*, Vol. 137, Issue 1 (1976), Page 99–150. Available online at <http://dx.doi.org/10.1007/BF02392415>
- [32] Avinoam Mann. *Some questions about p-groups*. *Journal of the Australian Mathematical Society*, Vol. 67 (1999), Page 356–379.
- [33] E. A. O'Brien and C. Voll. *Enumerating classes and characters of p-groups*. Available on the ArXiv at <http://arxiv.org/abs/1203.3050>
- [34] J. Peter May and Kate Ponto. *More Concise Algebraic Topology: Localization, Completion and Model Categories*. University of Chicago Press (2012). ISBN 0226511782
- [35] Aidan McDermott. *The non-abelian tensor product of groups: computations and structural results*. Ph.D. thesis. Available online at <http://web.math.unifi.it/users/fumagal/articles/McDermott.pdf>
- [36] Clair Miller. *The second homology group of a group; relations among commutators*. *Proceedings of the American Mathematical Society*, Vol. 3 (1952), Page 588–595. Available online at <http://www.ams.org/journals/proc/1952-003-04/S0002-9939-1952-0049191-5/S0002-9939-1952-0049191-5.pdf>
- [37] Kay Moneyhun. *Isoclinisms in Lie Algebras*. *Algebras Groups Geom.*, Vol. 11 (1994), Page 9–22.
- [38] E. A. O'Brien. *The groups of order 256*. *Journal of Algebra*, Vol. 143 (1991), Page 219–235. Available online at [http://dx.doi.org/10.1016/0021-8693\(91\)90261-6](http://dx.doi.org/10.1016/0021-8693(91)90261-6)
- [39] Foroud Parvaneh, Mohammad Reza R. Moghaddam, A. Khaksar. *Some Properties of n-Isoclinism in Lie Algebras*. *Italian Journal of Pure and Applied Mathematics*, Vol. 28 (2011), Page 165–176.
- [40] Donald H. Pilgrim. *Engel conditions on groups*. *Proceedings of the Iowa Academy of Sciences*, Vol. 71 (1964), Page 377–383.
- [41] B. I. Plotkin. *On some criteria of locally nilpotent groups*. *Uspekhi Mat. Nauk*, 9:3 (61) (1954), Page 181–186.
- [42] Joseph J. Rotman. *An Introduction to the Theory of Groups*. Springer Graduate Texts in Mathematics (1999). ISBN 0387942858
- [43] John Stallings. *Homology and central series of groups*. *Journal of Algebra*, Vol. 2 (1965), Page 170–181.

- [44] Michio Suzuki. *Group Theory II*. Springer (1986). ISBN 0387109161
- [45] Veeravalli S. Varadarajan. *The Lie group-Lie algebra correspondence*. Lecture notes on Lie theory, Chapter 9.
- [46] Charles Weibel. *An Introduction to Homological Algebra*. Cambridge University Press (1995). ISBN 0521559871
- [47] Thomas S. Weigel. *Exp and log functors for the categories of powerful  $p$ -central groups and Lie algebras*. Ph.D. thesis (not available online as of the time of this writing).