

## Citations to P. P. Pálffy's papers

December 12, 2011

(\* refers to a citation to a preliminary preprint version of the paper)

1. P. P. Pálffy, On certain congruence lattices of finite unary algebras, *Comment. Math. Univ. Carolinae* 19 (1978), 89–95. MR 57#12352

- (1) Artamonov, V. A., Universal algebras (Russian), *Itogi nauki i tehniki*, ser. algebra, topologia, geometria, tom 27, VINITI, Moscow, 1989, 45–124.
- (2) Grätzer G., *Universal Algebra*, 2nd ed., Springer, 1979.
- (3) Igoshin, V. I., A. V. Mikhalëv, V. N. Sališ, and L. A. Skorniyakov, Concrete lattices, in: *Ordered sets and lattices II* (Russian), Univerzita Komenského, Bratislava, 1988, 241–321.
- (4) Jakubíková-Studenovská, D., On congruence lattices of finite partial unary algebras, *Comment. Math. Univ. Carolinae* 22 (1981), 357–364.
- (5) Kogalovskii, S. R., On congruence lattices of finitely generated algebras, *Acta Sci. Math.* 64 (1998), 3–11.
- (6) Kogalovskii, S. R. and V. V. Soldatova, Remarks on congruence lattices of universal algebras (Russian), *Studia Sci. Math. Hungar.* 25 (1990), 33–43.
- (7) McKenzie, R., Finite forbidden lattices, *Lecture Notes Math.* 1004, Springer, 1983, 176–205.
- (8) Sauer, N., M. G. Stone, and R. H. Weedmark, Every finite algebra with congruence lattice  $M_7$  has principal congruences, *Lecture Notes Math.* 1004, Springer, 1983, 273–292.
- (9) Stone, M. G. and R. H. Weedmark, On representing  $M_n$ 's by congruence lattices of finite algebras, *Discrete Math.* 44 (1983), 299–308.

2a. B. Biró, E. W. Kiss, P. P. Pálffy, On the congruence extension property, *Colloq. Math. Soc. J. Bolyai* 29, Universal Algebra, Esztergom, 1977 (B. Csákány, E. Fried, E. T. Schmidt editors) North-Holland (1981), 129–151. MR 83f:08005

- (1) Almeida, A. and M. Ramalho, Congruences on equivalence algebras, *Algebra Universalis* 57 (2007), 383–392.
- (2) Dumesnil, J. A., On  $t$ -semigroups, *Semigroup Forum* 50 (1995), 383–387.
- (3) Garcia, J. I., The congruence extension property for algebraic semigroups, *Semigroup Forum* 43 (1991), 1–18.
- (4) Grätzer G., *Universal Algebra*, 2nd ed., Springer, 1979.
- (5) Jones, P. R., On the congruence extension property for semigroups, in: *Semigroups*, World Scientific, 1993, 133–143.
- (6) Kearnes, K. A., On the relationship between AP, RS and CEP, *Proc. Amer. Math. Soc.* 105 (1989), 827–839.
- (7) Kearnes, K. A., Type preservation in locally finite varieties with the CEP, *Canad. J. Math.* 13 (1991), 748–769.
- (8) Márki L., R. Mlitz and R. Strecker, Strict radicals of monoids, *Semigroup Forum* 21 (1980), 27–66.
- (9) McKenzie, R., Congruence extension, Hamiltonian and Abelian properties in locally finite varieties, *Algebra Universalis* 28 (1991), 589–603.
- (10) Tang, X., Semigroups with the congruence extension property, *Semigroup Forum* 56 (1998), 228–264.
- (11) Tang, X., Construction of semigroups with the congruence extension property, in: *Semigroups* (Kunming, 1995), Springer, 1998, 296–312.
- (12) Tang, X., Congruences on semigroups with the congruence extension property, *Commun. Algebra* 27 (1999), 5439–5461.
- (13) Tang, X., On the congruence extension property for semigroups: preservation under homomorphic images, *J. Algebra* 238 (2001), 411–425.
- (14) Vojvodić, G. and B. Šešelja, On CEP and CIP in the lattice of weak congruences, *Proc. Conf. Algebra and Logic*, Univ. Novi Sad, 1987, 221–227.
- (15) Vojvodić, G. and B. Šešelja, A note on the modularity of the lattice of weak congruences on a finite group, *Contributions to General Algebra* 5, Wien, 1987, 415–419.
- (16) Vojvodić, G. and B. Šešelja, On the lattice of weak congruence relations, *Algebra Universalis* 25 (1988), 121–130.

**2b.** B. Biró, E. W. Kiss, P. P. Pálffy, On the congruence extension property, *Semigroup Forum* 15 (1977), 183–184. **MR** 57#6246

- (1) Chajda, I. and I. G. Rosenberg, Remarks on Jónsson’s lemma, *Houston J. Math.* 22 (1996), 249–262.
- (2) Jones, P. R., On the congruence extension property for semigroups, in: *Semigroups*, World Scientific, 1993, 133–143.
- (3) Pastijn, F. J., Constructions of varieties that satisfy the amalgamation property or the congruence extension property, *Studia Sci. Math. Hungar.* 17 (1982), 101–111.
- (4) Pasztor, A., Nonstandard algorithmic and dynamic logic, *J. Symbolic Comput.* 2 (1986), 59–81.
- (5) Shevrin, L. N. and E. V. Sukhanov, Structural aspects of the theory of varieties of semigroups (Russian), *Izv. Vyssh. Uchebn. Zaved. Mat.* 1989, no. 6, 3–39.
- (6) Tang, X., Construction of semigroups with the congruence extension property, in: *Semigroups* (Kunming, 1995), Springer, 1998, 296–312.

**3.** P. P. Pálffy, On regular pronormal subgroups of symmetric groups, *Acta Math. Acad. Sci. Hungar.* 34 (1979), 287–292. **MR** 81j:20012

- (1) Alspach, B. and R. J. Sutcliffe, Vertex-transitive graphs of order  $2p$ , *Ann. New York Acad. Sci.* 319 (1979), 18–27.
- (2) Babai L., Isomorphism problem for a class of point-symmetric structures, *Acta Math. Acad. Sci. Hungar.* 29 (1977), 329–336. \*
- (3) Babai L. and P. Frankl, Isomorphisms of Cayley graphs, II, *Acta Math. Acad. Sci. Hung.* 34 (1979) 177–183.
- (4) Dobson, E., Classification of vertex-transitive graphs of order a prime-cubed — I, *Discrete Math.* 224 (2000), 99–106.
- (5) Dobson, E., On the Cayley isomorphism problem, *Discrete Math.* 247 (2002), 107–116.
- (6) Gawron, P. W. and W. Tomaszewski, On arrangement of regular cyclic subgroup in symmetric group, *Publ. Math. Debrecen* 53 (1998), 49–57.
- (7) Klin, M. H. and R. Pöschel, The König problem, the isomorphism problem for cyclic graphs and the method of Schur rings, *Colloq. Math. Soc. J. Bolyai* 25, Szeged, 1978, 405–434.
- (8) Li, C. H., On isomorphisms of finite Cayley graphs — a survey, *Discrete Math.* 256 (2002), 301–334.
- (9) Muzychuk, M. E., Ádám’s conjecture is true in the square-free case, *J. Combinat. Theory A* 72 (1995), 118–134.
- (10) Phelps, K. T., Isomorphism of circulant combinatorial structures, *Ars Combinatoria* 24A (1987), 195–210.
- (11) Phelps, K. T., Isomorphism problem for cyclic block designs, *Ann. Discrete Math.* 34 (1987), 385–392.
- (12) Phelps, K. T. and S. A. Vanstone, Isomorphism of strong starters in cyclic groups, *J. Combinat. Theory A* 57 (1991), 287–293.
- (13) Pöschel, R. und L. A. Kalužnin, *Funktionen- und Relationenalgebren*, Deutscher Verlag der Wissenschaften, 1979.
- (14) Xu, M-Y., Some work on vertex-transitive graphs by Chinese mathematicians, in: *Group Theory in China*, Kluwer, 1996, 224–254.

**4.** P. P. Pálffy, P. Pudlák, Congruence lattices of finite algebras and intervals in subgroup lattices of finite groups, *Algebra Universalis* 11 (1980), 22–27. **MR** 82g:08003

- (1) Aschbacher, M., On intervals in subgroup lattices of finite groups, *J. Amer. Math. Soc.* 21 (2008), 809–830.
- (2) Aschbacher, M., Overgroups of primitive groups, *J. Austral. Math. Soc.* 87 (2009), 37–82.
- (3) Aschbacher, M., Overgroups of primitive groups. II, *J. Algebra* 322 (2009), 1586–1626.
- (4) Aschbacher, M., Signalizer lattices in finite groups, *Michigan Math. J.* 58 (2009), 79–103.
- (5) Aschbacher, M. and M.-J. Shareshian, Restrictions on the structure of subgroup lattices of finite alternating and symmetric groups, *J. Algebra* 322 (2009), 2449–2463.
- (6) Ashrafi, A. R., The problem of intervals, *Southeast Asian Bull. Math.* 23 (1999), 551–557.
- (7) Baddeley, R., A new approach to the finite lattice representation problem, *Periodica Math. Hungar.* 36 (1998), 17–59.
- (8) Börner, F., A remark on the finite lattice representation problem, *Contributions to General Algebra* 11 (I. Chajda et al. eds.), Verlag Johannes Heyn, Klagenfurt, 1999, 5–38.

- (9) Börner, F., *Krasneralgebren*, Logos Verlag, Berlin, 2000.
- (10) Borovik, A. V., *Mathematics under the Microscope*, Amer. Math. Soc., Providence, 2009.
- (11) Darafseh, M. R. and A. S. Ashrafi, The problem of intervals in the subgroup lattice of a finite group, *Proc. 27th Ann. Iranian Math. Conf.*, Shiraz, 1996 (K. Seddighi ed.), 37–41.
- (12) Feit, W., An interval in the subgroup lattice of a finite group which is isomorphic to  $M_7$ , *Algebra Universalis* 17 (1983) 220–221.
- (13) Flavell, P., Overgroups of second maximal subgroups, *Arch. Math.* 64 (1995), 277–282.
- (14) Freese, R., Subgroup lattices of groups by R. Schmidt, book review, *Bull. Amer. Math. Soc.* 33 (1996), 487–492.
- (15) Freese, R., K. Kearnes, J. B. Nation, Congruence lattices of congruence semidistributive algebras, in: *Lattice Theory and Its Applications*, a volume in honor of Garrett Birkhoff’s 80th birthday, Heldermann Verlag, 1995, 63–78.
- (16) Grätzer G., *Universal Algebra*, 2nd ed., Springer, 1979.
- (17) Grätzer G., *General Lattice Theory*, 2nd ed., Birkhäuser, 1998.
- (18) Grätzer G., *Lattice Theory: Foundations*, Birkhäuser, 2011.
- (19) Gumm, H.-P., Geometrical reasoning and analogy in universal algebra, *Res. Expo. Math.* 4 (1984), 14–28.
- (20) Hobby, D. and R. McKenzie, *The structure of finite algebras*, Contemporary Math., vol. 76, AMS, 2nd printing, 1996.
- (21) Ihringer, T., A property of finite algebras having  $M_n$ ’s as congruence lattices, *Algebra Universalis* 19 (1984), 269–271.
- (22) Ihringer, T., *Congruence lattices of finite algebras: The characterization problem and the role of binary operations*, Algebra Berichte Nr. 53, Fischer Verlag, München, 1986.
- (23) Ihringer, T., *On seminets, groups and congruence relations*, Mitt. Math. Semin. Gießen Bd. 179, 1987.
- (24) Ihringer, T., *Allgemeine Algebra*, Teubner, 1988.
- (25) Kearnes, K. A. and Á. Szendrei, A characterization of minimal locally finite varieties, *Trans. Amer. Math. Soc.* 349 (1997), 1749–1768.
- (26) Kenney, T., Graphical algebras — a new approach to congruence lattices, *Algebra Universalis* 64 (2010), 313–338.
- (27) Köhler, P.,  $M_7$  as an interval in a subgroup lattice, *Algebra Universalis* 17 (1983), 263–266.
- (28) Kossak, R. and J. H. Schmerl, *The structure of models of Peano arithmetic*, Oxford University Press, 2006.
- (29) Kurzweil, H., Endliche Gruppen mit vielen Untergruppen, *J. reine angew. Math.* 356 (1985), 140–160.
- (30) Lampe, W. A., Congruence lattice representations and similarity type, *Colloq. Math. Soc. J. Bolyai* 29, Esztergom, 1977, 495–500.
- (31) Lampe, W. A., A perspective on algebraic representation of lattices, *Algebra Universalis* 31 (1994), 337–364.
- (32) Lucchini, A., Representation of certain lattices as intervals in subgroup lattices, *J. Algebra* 164 (1994), 85–90.
- (33) McKenzie, R., Finite forbidden lattices, *Lecture Notes Math.* 1004, Springer, 1983, 176–205.
- (34) McKenzie, R., Tame congruences, *Colloq. Math. Soc. J. Bolyai* 43, Szeged, 1983, 293–305.
- (35) McKenzie, R., Some interactions between group theory and the general theory of algebras, *Lecture Notes Math.* 1456, Springer, 1990, 32–48.
- (36) McKenzie, R. N., G. F. McNulty, and W. F. Taylor, *Algebras, Lattices, Varieties*, vol. I, Wadsworth & Brooks/Cole, 1987.
- (37) Mikhalëv, A. V., V. N. Saliĭ, and L. A. Skorniyakov, Concrete lattices, in: *Ordered sets and lattices* (Russian), Universita Komenského, Bratislava, 1985, 181–244.
- (38) Newry, N., Equational density of clones of polynomial functions, *Algebra Universalis* 33 (1995), 274–293.
- (39) Nurakunov, A. M., Finite lattices as lattices of relative congruences of finite unars and abelian groups, *Algebra and Logic* 40 (2001), 166–169.
- (40) Perepelitsky, P., Intervals in the subgroup lattice of the alternating and symmetric groups of prime degree, *J. Group Theory* 12 (2009), 119–137.
- (41) Repnitskiĭ, V. and J. Tůma, Intervals in subgroup lattices of countable locally finite groups, *Algebra Universalis* 59 (2008), 49–71.

- (42) Sauer, N., M. G. Stone, and R. H. Weedmark, Every finite algebra with congruence lattice  $M_7$  has principal congruences, *Lecture Notes Math.* 1004, Springer, 1983, 273–292.
  - (43) Schmidt E. T., *A survey on congruence lattice representations*, Teubner, 1982.
  - (44) Schmidt, R., *Subgroup Lattices of Groups*, de Gruyter Expo. in Math., vol. 14, Walter de Gruyter, Berlin–New York, 1994.
  - (45) Schmidt, S. E., *Grundlegungen zu einer allgemeinen affinen Geometrie*, Birkhäuser, 1995.
  - (46) Shareshian, J., Topology of order complexes of intervals in subgroup lattices, *J. Algebra* 268 (2003), 677–686.
  - (47) Shevrin, L. N. and A. J. Ovsyannikov, *Semigroups and their subsemigroup lattices*, Kluwer, 1996.
  - (48) Stone, M. G. and R. H. Weedmark, On representing  $M_n$ 's by congruence lattices of finite algebras, *Discrete Math.* 44 (1983), 299–308.
  - (49) Szendrei Á., *Clones in Universal Algebra*, Univ. Montréal, 1986.
  - (50) Szendrei Á., Simple Abelian algebras, *J. Algebra* 151 (1992), 408–424.
  - (51) Tůma, J., Perfect chamber systems, *Colloq. Math. Soc. J. Bolyai* 43, Szeged, 1983, 533–548.
  - (52) Tůma, J., Some finite congruence lattices I, *Czech. Math. J.* 36 (1986), 298–330.
  - (53) Tůma, J., Intervals in subgroup lattices of infinite groups, *J. Algebra* 125 (1989), 367–399.
  - (54) Tůma, J., Partitions, congruences and subgroup representations of lattices, in: *Lattice Theory and Its Applications*, a volume in honor of Garrett Birkhoff's 80th birthday, Heldermann Verlag, 1995, 229–239.
  - (55) Tůma, J., On infinite partition representations and their finite quotients, *Czech. Math. J.* 45 (1995), 21–38.
  - (56) Valeriote, M. A., Finite simple Abelian algebras are strictly simple, *Proc. Amer. Math. Soc.* 108 (1990), 49–57.
  - (57) Vandenberg, J. E. and J. G. Raftery, Every algebraic chain is the congruence lattice of a ring, *J. Algebra* 162 (1993), 97–106.
  - (58) Volkov, M. V., Young diagrams and the structure of the lattice of overcommutative semigroup varieties, in: *Transformation Semigroups* (Proc. Conf. Colchester, 1993), Univ. Essex, Colchester, 1994; 99–110.
  - (59) Wehrung, F., Distributive semilattices as retracts of ultraboolean ones; functional inverses without adjunction, *J. Pure Appl. Algebra* 202 (2005), 201–229.
  - (60) Wehrung, F., Lifting retracted diagrams with respect to projectable functors, *Algebra Universalis* 54 (2005), 349–371.
  - (61) Wild, M., Join epimorphisms which preserve certain lattice identities, *Algebra Universalis* 27 (1990), 398–410.
  - (62) Wild, M., The fundamental theorem of projective geometry for an arbitrary length two module, *Rocky Mountain J. Math.* 36 (2006), 2075–2080.
- 5.** P. P. Pálffy, L. Szabó, Á. Szendrei, Algebras with doubly transitive automorphism groups, *Colloq. Math. Soc. J. Bolyai* 28, Finite algebra and multiple-valued logic, Szeged, 1979 (B. Csákány, I. Rosenberg editors) North-Holland (1981), 521–535. **MR** 83f:08008
- (1) Csákány B., Homogeneity and completeness, *Lecture Notes Computer Sci.* 117, Springer, 1981, 81–89.
  - (2) Demetrovics J. and L. Hannák, On the number of functionally complete algebras, *Proc. 12th Int. Symp. on Multiple-valued logic*, Paris, 1982, 329–330.
  - (3) Demetrovics J., L. Hannák, and L. Rónyai, Almost all prime-element algebras with transitive automorphism groups are functionally complete, *Colloq. Math. Soc. J. Bolyai* 28, Szeged, 1979, 191–201.
  - (4) Demetrovics J., L. Hannák, and L. Rónyai, Prime-element algebras with transitive automorphism groups, *C. R. Math. Rep. Acad. Sci. Canada* 3 (1981), 19–22.
  - (5) Demetrovics J., L. Hannák, and L. Rónyai, On functional completeness of prime-element algebras, *MTA SZTAKI Közl.* No. 25 (1982), 53–59.
  - (6) Demetrovics J., L. Hannák, and L. Rónyai, Selfdual classes and automorphism groups, *Proc. 13th Int. Symp. on Multiple-valued logic*, Kyoto, 1983, 122–125.
  - (7) Il'inykh, A. P., Classification of finite groupoids with a 2-transitive group of automorphisms (Russian), *Mat. Sb.* 185 (1994), No. 6, 51–78.
- 6.** P. P. Pálffy, Groups with two non-linear irreducible representations, *Ann. Univ. Sci. Budapest. Sect. Math.* 24 (1981), 181–192. **MR** 88a:20018
- (1) Karpilovsky, G., *Group Representations*, vol. 5, North-Holland, 1996.

- (2) Wu, Y.-T. and P. Zhang, Finite solvable groups whose character graphs are trees, *J. Algebra* 308 (2007), 536–544.
  - (3) Zhang, G. X., Finite groups with exactly two nonlinear irreducible characters (Chinese), *Chinese Ann. Math. Ser. A* 17 (1996), 227–232. (see MR 97c:20012)
- 7.** P. P. Pálffy, On faithful irreducible representations of finite groups, *Studia Sci. Math. Hungar.* 14 (1979), 95–98. **MR** 83i:20008
- (1) Bekka, B. and P. de la Harpe, Irreducibly represented groups, *Comment. Math. Helv.* 83 (2008), 847–868.
  - (2) Dür, A., *Möbius functions, incidence algebras and power-series representations*, *Lecture Notes Math.* 1202, Springer, 1986.
  - (3) Karpilovsky, G., *Group Representations*, vol. 5, North-Holland, 1996.
- 8.** P. P. Pálffy, A polynomial bound for the orders of primitive solvable groups, *J. Algebra* 77 (1982), 127–137. **MR** 84c:20007
- (1) Amberg, B., A. Carocca and L. Kazarin, Criteria for the solubility and non-simplicity of finite groups, *J. Algebra* 285 (2005), 58–72.
  - (2) Anai, H., M. Noro, and K. Yokoyama, Computation of the splitting field and the Galois group of polynomials, In: *Algorithmic Algebraic Geometry and Applications* (eds. L. González-Vega, T. Recio) *Progress in Math.* vol. 143, Birkhäuser Verlag, Basel, 1996, 29–50.
  - (3) Arvind, V., B. Das and P. Mukhopadhyay, Isomorphism and canonization of tournaments and hypertournaments, *J. Comput. System Sci.* 76 (2010), 509–523.
  - (4) Arvind, V. and P. P. Kurur, Upper bounds on the complexity of some Galois theory problems, *Lecture Notes Computer Sci.* 2903, Springer, 2003, 716–725.
  - (5) Babai L., Moderately exponential bound for graph isomorphisms, *Lecture Notes Computer Sci.* 117, Springer, 1981, 34–50. \*
  - (6) Babai L., Computational complexity in finite groups, *Proc. ICM Kyoto, 1990*, Vol. II, 1479–1489.
  - (7) Babai L., Automorphism groups, isomorphism, reconstruction, in: *Handbook of Combinatorics* (R. Graham, M. Grötschel and L. Lovász eds.) Elsevier, 1995. 1447–1540.
  - (8) Babai L., A. Goodman, and L. Pyber, Groups without faithful transitive permutation representations of small degree, *J. Algebra* 195 (1997), 1–29.
  - (9) Babai L., W. M. Kantor, and E. M. Luks, Computational complexity and the classification of finite simple groups, *Proc. 24th FOCS, 1983*, 162–171.
  - (10) Babai L. and E. M. Luks, Canonical labeling of graphs, *Proc. 15th STOC, 1983*, 171–183.
  - (11) Birszki B., Primitive sharp permutation groups with large solvable subgroups, *J. Group Theory* 10 (2007), 287–298.
  - (12) Blackburn, S. R., P. M. Neumann, and G. Venkataraman, *Enumeration of finite groups*, Cambridge Tracts in Mathematics, vol. 173, Cambridge University Press, 2007.
  - (13) Butler, G., *Fundamental algorithms for permutation groups*, *Lecture Notes Computer Sci.* 559, Springer, 1991.
  - (14) Dèbes, P. and Y. Walkowiak, Bounds for Hilbert’s irreducibility theorem, *Pure Appl. Math. Q.* 4 (2008), 1059–1083.
  - (15) Dixon, J. D. and B. Mortimer, *Permutation Groups*, Springer, 1996.
  - (16) Dolfi, S., M. Herzog, G. Kaplan, and A. Lev, The size of the solvable residual in finite groups, *Groups Geom. Dyn.* 1 (2007), 401–407.
  - (17) Evdokimov, S. and I. Ponomarenko, Two-closure of odd permutation groups in polynomial time, *Discrete Math.* 235 (2001), 221–232.
  - (18) Evdokimov, S. A. and I. N. Ponomarenko, Circulant graphs: Recognizing and isomorphism testing in polynomial time, *St. Petersburg Math. J.* 15 (2004), 813–835.
  - (19) Heineken, H., Nilpotent subgroups of finite soluble groups, *Arch. Math.* 56 (1991), 417–423.
  - (20) Kantor, W. M., Sylow’s theorem in polynomial time, *J. Comput. Syst. Sci.* 30 (1985), 359–394.
  - (21) Kantor, W. M., Random remarks on permutation group algorithms, *DIMACS series in Discrete Math. and Theoretical Computer Sci.* vol. 11, AMS, 1993, 127–131.
  - (22) Kantor, W. M. and D. E. Taylor, Polynomial-time versions of Sylow’s theorem, *J. Algorithms* 9 (1988), 1–17.

- (23) Kazarin, L. S., On groups which are products of two solvable subgroups (Russian), *Commun. Algebra* 14 (1986), 1001–1066.
- (24) Landau, S., Polynomial time algorithms for Galois groups, *Lecture Notes Computer Sci.* 174, Springer, 1984, 225–236.
- (25) Landau, S.,  $\sqrt{2} + \sqrt{3}$ : Four different views, *Math. Intell.* 20 (1998), 55–60.
- (26) Landau, S. and G. L. Miller, Solvability by radicals is in polynomial time, *J. Comput. Syst. Sci.* 30 (1985), 179–208.
- (27) Lenstra, H. W. jr., Algorithms in algebraic number theory, *Bull. Amer. Math. Soc.* 26 (1992), 211–244.
- (28) Liebeck, M. W. and L. Pyber, Upper bounds for the number of conjugacy classes of a finite group, *J. Algebra* 198 (1997), 538–562.
- (29) Liebeck, M. W. and A. Shalev, Bases of primitive permutation groups, in: *Groups, Combinatorics and Geometry* (Durham, 2001) World Scientific, Singapore, 2003. 147–154.
- (30) Lubotzky, A. and D. Segal, *Subgroup Growth*, Birkhäuser, 2003.
- (31) Lucchini, A., F. Menegazzo and M. Morigi, On the probability of generating prosoluble groups, *Israel J. Math.* 155 (2006), 93–115.
- (32) Luks, E. M., Isomorphism of graphs of bounded valence can be tested in polynomial time, *Proc. 21st FOCS Symp.*, 1980, 42–49. \*
- (33) Luks, E. M., Isomorphism of graphs of bounded valence can be tested in polynomial time, *J. Comput. Syst. Sci.* 25 (1982), 42–65.
- (34) Luks, E. M., Computing in solvable matrix groups, *Proc. 33th FOCS Symp.*, 1992, 111–120.
- (35) Luks, E. M. and P. McKenzie, Fast parallel computation with permutation groups, *Proc. 26th FOCS Symp.*, 1985, 505–514.
- (36) Luks, E. M. and P. McKenzie, Parallel algorithms for solvable permutation groups, *J. Comput. Syst. Sci.* 37 (1988), 39–62.
- (37) Macpherson, D., A survey of homogeneous structures, *Discrete Math.* 311 (2011), 1599–1634.
- (38) Manz, O. and T. R. Wolf, *Representations of solvable groups*, London Math. Soc. Lecture Notes 185, Cambridge Univ. Press, 1993.
- (39) Mark, P. D., Parallel computation of Sylow subgroups in solvable groups, *DIMACS series in Discrete Math. and Theoretical Computer Sci.* vol. 11, AMS, 1993, 177–187.
- (40) Maróti A., Bounding the number of conjugacy classes of a permutation group, *J. Group Theory* 8 (2005), 273–289.
- (41) Morigi, M., On the probability of generating free prosoluble groups of small rank, *Israel J. Math.* 155 (2006), 117–123.
- (42) Ponomarenko, I. N., Polynomial time recognition and testing of isomorphism of cyclic tournaments, *J. Math. Sci.* 70 (1990), 1890–1911.
- (43) Ponomarenko, I. N., Polynomial time algorithms for recognizing and isomorphism testing of cyclic tournaments, *Acta Appl. Math.* 29 (1992), 139–160.
- (44) Ponomarenko, I. N., Graph isomorphism problem and 2-closed permutation groups, *Appl. Algebra in Engin. Commun. and Comput.* 5 (1994), 9–22.
- (45) Praeger, C. E. and A. Shalev, Bounds on finite quasiprimitive permutation groups, *J. Austral. Math. Soc. Ser. A* 71 (2001), 243–258.
- (46) Pyber L., Enumerating finite groups of given order, *Annals Math.* 137 (1993), 203–220.
- (47) Pyber L., Asymptotic results for permutation groups, *DIMACS series in Discrete Math. and Theoretical Computer Sci.* vol. 11, AMS, 1993, 197–219.
- (48) Pyber L., How abelian is a finite group?, in: *The mathematics of Paul Erdős* (R. L. Graham and J. Nešetřil eds.) Springer, 1996, vol. I, 342–354.
- (49) Pyber L. and D. Segal, Finitely generated groups with polynomial index growth, *J. reine angew. Math.* 612 (2007), 173–211.
- (50) Pyber L. and A. Shalev, Asymptotic results for primitive permutation groups, *J. Algebra* 188 (1997), 103–124.
- (51) Seager, S. M., A bound on the rank of primitive solvable permutation groups, *J. Algebra* 116 (1988), 342–352.
- (52) Seress Á., The minimal base size of primitive solvable permutation groups, *J. London Math. Soc.* 53 (1996), 243–255.

- (53) Soules, P., Two-generator subgroups of soluble groups and their Fitting subgroups, *Arch. Math.* 80 (2003), 449–457.
  - (54) Stroth, G., Algorithms in pure mathematics, In: *Computational Discrete Mathematics* (H. Alt, ed.) *Lecture Notes in Computer Science* 2122, Springer, 2001. 148–158.
  - (55) Venkataraman, G., Enumeration of finite soluble groups with abelian Sylow subgroups, *Quart. J. Math. Oxford* 48 (1997), 107–125.
  - (56) Weigel, A. G. and T. S. Weigel, On the orders of primitive linear  $p'$ -groups, *Bull. Austral. Math. Soc.* 48 (1993), 495–521.
  - (57) Wolf, T. R., Large orbits of supersolvable linear groups, *J. Algebra* 215 (1999) 235–247.
  - (58) Yokoyama, K., M. Noro and T. Takeshima, On determining the solvability of polynomials, *Proc. Int. Symp. Symbolic and Algebraic Computation* (Tokyo, 1990), ACM Press 1990. 127–134.
- 9.** L. Babai, P. J. Cameron, P. P. Pálffy, On the orders of primitive groups with restricted nonabelian composition factors, *J. Algebra* 79 (1982), 161–168. **MR** 84e:20003
- (1) Arvind, V., B. Das and P. Mukhopadhyay, On isomorphism and canonization of tournaments and hypertournaments, in: *Algorithms and computation, 17th ISAAC, Lecture Notes Computer Sci.* 4288, Springer, 2006, 449–459.
  - (2) Arvind, V., B. Das and P. Mukhopadhyay, Isomorphism and canonization of tournaments and hypertournaments, *J. Comput. System Sci.* 76 (2010), 509–523.
  - (3) Arvind, V. and P. P. Kurur, A polynomial time nilpotence test for Galois groups and related results, in: *Proc. 31th Int. Symp. MFCS, Lecture Notes Computer Sci.* 4162, Springer, 2006, 134–145.
  - (4) Borovik, A. V., L. Pyber and A. Shalev, Maximal subgroups in finite and profinite groups, *Trans. Amer. Math. Soc.* 348 (1996), 3745–3761.
  - (5) Bourgain, J. and G. Kalai, Influences of variables and threshold intervals under group symmetries, *Geom. Funct. Anal.* 7 (1997), 438–461.
  - (6) Cherlin, G. and A. H. Lachlan, Stable finitely homogeneous structures, *Trans. Amer. Math. Soc.* 296 (1986), 815–850.
  - (7) Dèbes, P. and Y. Walkowiak, Bounds for Hilbert’s irreducibility theorem, *Pure Appl. Math. Q.* 4 (2008), 1059–1083.
  - (8) Dixon, J. D. and B. Mortimer, *Permutation Groups*, Springer, 1996.
  - (9) Fürer, M., W. Schnyder and E. Specker, Normal forms for trivalent graphs and graphs of bounded valence, in: *Proc. STOC’83*, ACM, New York, 1983, 161–170.
  - (10) Gluck, D., Á. Seress, and A. Shalev, Bases for primitive permutation groups and a conjecture of Babai, *J. Algebra* 199 (1998), 367–378.
  - (11) Jaikin-Zapirain, A. and L. Pyber, Random generation of finite and profinite groups and group enumeration, *Annals Math.* 173 (2011), 769–814.
  - (12) Kantor, W. M., Notes on polynomial-time group theory, *CWI Quart.* 5 (1992), 93–105.
  - (13) Kantor, W. M., Random remarks on permutation group algorithms, *DIMACS series in Discrete Math. and Theoretical Computer Sci.* vol. 11, AMS, 1993, 127–131.
  - (14) Kantor, W. M. and E. M. Luks, Computing in quotient groups, *Proc. 22nd ACM Symp. on Theory of Computing*, 1990, 524–534.
  - (15) Kantor, W. M. and D. E. Taylor, Polynomial-time versions of Sylow’s theorem, *J. Algorithms* 9 (1988), 1–17.
  - (16) Liebeck, M. W. and A. Shalev, Bases of primitive permutation groups, in: *Groups, Combinatorics and Geometry* (Durham, 2001) World Scientific, Singapore, 2003. 147–154.
  - (17) Lubotzky, A., Counting finite index subgroups, in: *Groups’93 Galway/St Andrews*, vol. 2, London Math. Soc. Lecture Notes Ser., vol. 212, Cambridge University Press, 1995, 368–404.
  - (18) Lubotzky, A., Subgroup growth and congruence subgroups, *Invent. Math.* 119 (1995), 267–295.
  - (19) Lubotzky, A. and D. Segal, *Subgroup Growth*, Birkhäuser, 2003.
  - (20) Luks, E. M., Isomorphism of graphs of bounded valence can be tested in polynomial time, *J. Comput. Syst. Sci.* 25 (1982), 42–65.
  - (21) Luks, E. M., Parallel algorithms for permutation groups and graph isomorphism, *Proc. 27th FOCS Symp.*, 1986, 292–302.
  - (22) Luks, E. M., Permutation groups and polynomial-time computation, *DIMACS series in Discrete Math. and Theoretical Computer Sci.* vol. 11, AMS, 1993, 139–175.

- (23) Luks, E. M. and P. McKenzie, Fast parallel computation with permutation groups, *Proc. 26th FOCS Symp.*, 1985, 505–514.
  - (24) Luks, E. M. and P. McKenzie, Parallel algorithms for solvable permutation groups, *J. Comput. Syst. Sci.* 37 (1988), 39–62.
  - (25) Luks, E. M. and T. Miyazaki, Polynomial-time normalizers for permutation groups with restricted composition factors, *Proc. 2002 Int. Symp. Symbolic and Algebraic Computation*, ACM, 2002. 176–183.
  - (26) Mann, A., Some properties of polynomial subgroup growth groups, *Israel J. Math.* 82 (1993), 373–380.
  - (27) Mann, A. and A. Shalev, Simple groups, maximal subgroups, and probabilistic aspects of profinite groups, *Israel J. Math.* 96 (1996), 449–468.
  - (28) Maróti A., On the orders of primitive groups, *J. Algebra* 258 (2002), 631–640.
  - (29) Miller, G. L., Isomorphism of  $k$ -contractible graphs. A generalization of bounded valence and bounded genus, *Inf. and Control* 56 (1983), 1–20.
  - (30) Miller, G. L., Isomorphism of graphs which are pairwise  $k$ -separable, *Inf. and Control* 56 (1983), 21–33.
  - (31) Miller, G. L., Isomorphism testing and canonical forms for  $k$ -contractable graphs, *Lecture Notes Computer Sci.* 158, Springer, 1983, 310–327.
  - (32) Miyazaki, T., Deterministic algorithms for management of matrix groups, in: *Groups and Computation, III* (W. M. Kantor, Á. Seress eds.), Walter de Gruyter, 2001, 265–280.
  - (33) Nikolov, N. and D. Segal, On finitely generated profinite groups I, Strong completeness and uniform bounds, *Annals Math.* 165 (2007), 171–238.
  - (34) Praeger, C. E., Finite simple groups and finite permutation groups, *Bull. Austral. Math. Soc.* 28 (1983), 355–365.
  - (35) Praeger, C. E., Subgroups of finite symmetric groups, *Adv. Math.* 19 (1990), 1–11.
  - (36) Praeger, C. E. and A. Shalev, Bounds on finite quasiprimitive permutation groups, *J. Austral. Math. Soc. Ser. A* 71 (2001), 243–258.
  - (37) Pyber L., Asymptotic results for permutation groups, *DIMACS series in Discrete Math. and Theoretical Computer Sci.* vol. 11, AMS, 1993, 197–219.
  - (38) Pyber L., Asymptotic results for simple groups and some applications, *DIMACS series in Discrete Math. and Theoretical Computer Sci.* vol. 28, AMS, 1997, 309–327.
  - (39) Pyber L., How abelian is a finite group?, in: *The mathematics of Paul Erdős* (R. L. Graham and J. Nešetřil eds.) Springer, 1996, vol. I, 342–354.
  - (40) Pyber L., Group enumeration and where it leads us, in: *Proc. 2nd Europ. Congr. Math.*, Progress in Math., vol. 169, Birkhäuser, 1998, 187–199.
  - (41) Pyber L., Bounded generation and subgroup growth, *Bull. London Math. Soc.* 34 (2002), 55–60.
  - (42) Pyber L. and A. Shalev, Groups with super-exponential subgroup growth, *Combinatorica* 16 (1996), 527–533.
  - (43) Pyber L. and A. Shalev, Asymptotic results for primitive permutation groups, *J. Algebra* 188 (1997), 103–124.
  - (44) Segal, D., Variations on polynomial subgroup growth, *Israel J. Math.* 94 (1996), 7–19.
  - (45) Shalev, A., Subgroup growth and sieve methods, *Proc. London Math. Soc.* 74 (1997), 335–359.
  - (46) Shalev, A., Simple groups, permutation groups, and probability, in: *Proc. ICM, Berlin, 1998*, vol. II, 129–137.
  - (47) Shalev, A., Probabilistic group theory, in: *Groups St Andrews 1997 in Bath, II* (C. M. Campbell, E. F. Robertson, N. Ruskuc, G. C. Smith eds.), London Math. Soc. Lecture Notes Ser. 261, Cambridge Univ. Press, 1999, 648–678.
  - (48) Shalev, A., Fixed point ratios, character ratios, and Cayley graphs, in: *Combinatorial and computational algebra*, Contemp. Math., vol. 264, Amer. Math. Soc., 2000.
  - (49) Strassen, V., Algebraic complexity theory, in: *Handbook of theoretical computer science*, vol. A: *Algorithms and complexity*, Elsevier, 1990, 633–672.
  - (50) Zemlyachenko, V. N., N. M. Kornienko, and R. I. Tyshkevich, Isomorphism of graphs with bounded parameters (Russian), *Zap. Nauchn. Sem. Leningrad. Otdel. Mat. Inst. Steklov. AN SSSR* 118 (1982), 83–158.
- 10.** P. P. Pálffy, L. Szabó, Á. Szendrei, Automorphism groups and functional completeness, *Algebra Universalis* 15 (1982), 385–400. **MR** 84d:08002
- (1) Csákány B., Homogeneity and completeness, *Lecture Notes Computer Sci.* 117, Springer, 1981, 81–89.

- (2) Csákány B., Függelék S. Burris és H. P. Sankappanavar „Bevezetés az univerzális algebrába” c. könyvének magyar kiadásához, Tankönyvkiadó, 1988.
  - (3) Czédli G., Two minimal clones whose join is gigantic, *Publ. Math. Debrecen* 55 (1999), 155–159.
  - (4) Hobby, D., D. Silberger and S. Silberger, Automorphism groups of finite groupoids, *Algebra Universalis* 64 (2010), 117–136.
  - (5) Ihringer, T., *Allgemeine Algebra*, Teubner, 1988.
  - (6) Kaarli, K. and A. F. Pixley, *Polynomial completeness in algebraic systems*, Chapman & Hall, Boca Raton, 2001.
  - (7) Vármonostory E., Order-discriminating operations, *Order* 9 (1992), 239–244.
  - (8) Vármonostory E., Permutation-pattern algebras, *Algebra Universalis* 45 (2001), 435–448.
  - (9) Vármonostory E., Totally reflexive, totally symmetric pattern algebras, *Mathematica* 47 (2005), 223–230.
  - (10) Vármonostory E., Partially ordered pattern algebras, *Acta Cybernetica* 18 (2008), 795–805.
- 11.** P. P. Pálffy, M. Szalay, On a problem of P. Turán concerning Sylow subgroups, *Studies in pure mathematics to the memory of Paul Turán*, Akadémiai Kiadó (Budapest, 1983), 531–542. **MR** 87d:11073
- (1) Abért M. and B. Virág, Dimension and randomness in groups acting on rooted trees, *J. Amer. Math. Soc.* 18 (2004), 157–192.
  - (2) Evans, S. N., Eigenvalues of random wreath products, *Electr. J. Probab.* 7 (2002), paper no. 9, 1–15.
  - (3) Maróti A., Bounding the number of conjugacy classes of a permutation group, *J. Group Theory* 8 (2005), 273–289.
  - (4) Schlage-Puchta, J.-C., The order of elements in Sylow  $p$ -subgroups of the symmetric group, *Acta Math. Hungar.* 105 (2004), 187–195.
  - (5) Schmutz, E., Proof of a conjecture of Erdős and Turán, *J. Number Theory* 31 (1989), 260–271.
- 12.** P. P. Pálffy, M. Szalay, The distribution of the character degrees of the symmetric  $p$ -groups, *Acta Math. Hungar.* 41 (1983), 137–150. **MR** 84h:20073
- (1) Berkovich, Y., *Groups of prime power order*, vol. 1, de Gruyter Expositions in Math., vol. 46, Walter de Gruyter, Berlin, 2008.
  - (2) Berkovich, Y. and Z. Janko, *Groups of prime power order*, vol. 2, de Gruyter Expositions in Math., vol. 47, Walter de Gruyter, Berlin, 2008.
  - (3) Evans, S. N., Eigenvalues of random wreath products, *Electr. J. Probab.* 7 (2002), paper no. 9, 1–15.
  - (4) Mann, A., Some questions about  $p$ -groups, *J. Austral. Math. Soc.* 67 (1999), 356–379.
  - (5) Schlage-Puchta, J.-C., The order of elements in Sylow  $p$ -subgroups of the symmetric group, *Acta Math. Hungar.* 105 (2004), 187–195.
  - (6) Shalev, A., Finite  $p$ -groups, in: *Finite and locally finite groups* (B. Hartley et al. eds.), Kluwer, Dordrecht–Boston–London, 1995; 401–450 .
  - (7) Starostin, A. I., Finite  $p$ -groups, *J. Math. Sci.* 88 (1998), 559–585.
- 13.** P. P. Pálffy, One-step and two-step nonabelian groups, *Studia Sci. Math. Hungar.* 16 (1981), 471–476. **MR** 84m:20026
- (1) Márki L., A tribute to L. Rédei, *Semigroup Forum* 32 (1985), 1–21.
- 14.** P. P. Pálffy, Unary polynomials in algebras, I, *Algebra Universalis* 18 (1984), 262–273. **MR** 86h:08001a
- (1) Bereczky Á. and Maróti A., On groups with every normal subgroup transitive or semiregular, *J. Algebra* 319 (2008), 1733–1751.
  - (2) Berman, J. D., E. W. Kiss, P. Pröhle, and Á. Szendrei, The set of types of a finitely generated variety, *Discrete Math.* 112 (1993), 1–20.
  - (3) Berman, J. and S. Seif, An approach to tame congruence theory via subtraces, *Algebra Universalis* 30 (1993), 479–520.
  - (4) Borovik, A. V., *Mathematics under the Microscope*, Amer. Math. Soc., Providence, 2009.
  - (5) Bulatov, A., A. Krokhin, K. Safin and E. Sukhanov, On the structure of clone lattices, in: *General algebra and discrete mathematics*, Heldermann, 1995, 27–34.
  - (6) Demetrovics J. and L. Rónyai, A note on intersection of isotone clones, *Acta Cyb.* 10 (1992), 217–220.
  - (7) Dormán M., Intervals of collapsing monoids, *Acta Sci. Math.* 68 (2002), 561–569.
  - (8) Dormán M., Collapsing inverse monoids, *Algebra Universalis* 56 (2007), 241–261.

- (9) Dormán M., Collapsing monoids consisting of permutations and constants, *Algebra Universalis* 58 (2008), 479–492.
- (10) Dyer, M., L. A. Goldberg and M. Jerrum, A complexity dichotomy for hypergraphs partition functions, *Comput. Complexity* 19 (2010), 605–633.
- (11) Fearnley, A., The clone of operations preserving a cycle with loops, *Algebra Universalis* 60 (2009), 91–106.
- (12) Fearnley, A. and I. G. Rosenberg, Collapsing monoids containing permutations and constants, *Algebra Universalis* 50 (2003), 149–156.
- (13) Feit, W., An interval in the subgroup lattice of a finite group which is isomorphic to  $M_7$ , *Algebra Universalis* 17 (1983) 220–221.
- (14) Fried E., L. Szabó, and Á. Szendrei, Algebras with  $p$ -uniform principal congruences, *Studia Sci. Math. Hungar.* 16 (1981), 229–235.
- (15) Ganter, B. and T. Ihringer, Varieties with linear subalgebra geometries, *Lecture Notes Math.* 1149, Springer, 1985, 94–100.
- (16) Haddad, L. and I. G. Rosenberg, Finite clones containing all permutations, *Canad. J. Math.* 46 (1994), 951–970.
- (17) Hobby, D., Congruence lattices of finite algebras, *Algebra Universalis* 23 (1986), 44–57.
- (18) Hobby, D. and R. McKenzie, *The structure of finite algebras*, Contemporary Math., vol. 76, AMS, 2nd printing, 1996.
- (19) Idziak, P. M. and K. Słomczyńska, Polynomially rich algebras, *J. Pure Appl. Algebra* 156 (2001), 33–68.
- (20) Ihringer, T., On finite algebras having a linear congruence class geometry, *Algebra Universalis* 19 (1984), 1–10.
- (21) Ihringer, T., A property of finite algebras having  $M_n$ 's as congruence lattices, *Algebra Universalis* 19 (1984), 269–271.
- (22) Ihringer, T., *Congruence lattices of finite algebras: The characterization problem and the role of binary operations*, Algebra Berichte Nr. 53, Fischer Verlag, München, 1986.
- (23) Ihringer, T., *On seminets, groups and congruence relations*, Mitt. Math. Semin. Gießen Bd. 179, 1987.
- (24) Ihringer, T., *Allgemeine Algebra*, Teubner, 1988.
- (25) Ihringer, T., A remark on clones and permutation groups, *Contributions to General Algebra* 7, Wien, 1991, 197–200.
- (26) Ihringer, T. and R. Pöschel, Collapsing clones, *Acta Sci. Math.* 58 (1993), 99–113.
- (27) Kearnes, K. A., Categorical quasivarieties via Morita equivalence, *J. Symbolic Logic* 65 (2000), 839–856.
- (28) Kearnes, K. A. and Á. Szendrei, Collapsing permutation groups, *Algebra Universalis* 45 (2001), 35–51.
- (29) Kearnes, K. A. and Á. Szendrei, Clones closed under conjugation. I. Clones with constants, *Internat. J. Algebra Comput.* 18 (2008), 7–58.
- (30) Krokhin, A. A., Monoidal intervals in clone lattices (Russian), *Algebra i Logika* 34 (1995), No. 3, 288–310.
- (31) Krokhin, A. A., Monoidal and distributive intervals in clone lattices, in: *Algebra* (Yu. L. Ershov, E. I. Khukhro, V. M. Levchuk, N. D. Podufalov eds.), deGruyter, 1996, 153–159.
- (32) Krokhin, A. A., On clones, transformation monoids, and associative rings, *Algebra Universalis* 37 (1997), 527–540.
- (33) Krokhin, A. A., Congruences on clone lattices, II, *Order* 18 (2001), 151–159.
- (34) Länger, H. and R. Pöschel, Relational systems with trivial endomorphisms and polymorphisms, *J. Pure Appl. Algebra* 32 (1984), 129–142.
- (35) Larose, B. and L. Zádori, Taylor terms, constraint satisfaction and the complexity of polynomial equations over finite algebras, *Internat. J. Algebra Comput.* 16 (2006), 563–581.
- (36) Lashkia, V., M. Miyakawa, A. Nozaki, G. Pogosyan, and I. G. Rosenberg, Semirigid sets of diamond orders, *Discrete Math.* 156 (1996), 277–283.
- (37) McKenzie, R., Finite forbidden lattices, *Lecture Notes Math.* 1004, Springer, 1983, 176–205.
- (38) McKenzie, R., Tame congruences, *Colloq. Math. Soc. J. Bolyai* 43, Szeged, 1983, 293–305.
- (39) Nozaki, A., M. Miyakawa, G. Pogosyan and I. G. Rosenberg, The number of orthogonal permutations, *European J. Combinatorics* 16 (1995), 71–85.
- (40) Pouzet, M. and I. Zaguia, Weak orders admitting a perpendicular linear order, *Discrete Math.* 307 (2007), 97–107.
- (41) Rival, I. and N. Zaguia, Perpendicular orders, *Discrete Math.* 137 (1995), 303–313.

- (42) Schweigert, D., Hyperidentities, in: *Algebras and Orders*, Kluwer, 1993, 405–506.
  - (43) Stronkowski, M. M., Cancellation in entropic algebras, *Algebra Universalis* 60 (2009), 439–468.
  - (44) Szabó L., Algebras that are simple with weak automorphisms, *Algebra Universalis* 42 (1999), 205–233.
  - (45) Szabó L., On algebras with primitive positive clones, *Acta Sci. Math.* 73 (2007), 463–470.
  - (46) Szendrei Á., *Clones in Universal Algebra*, Univ. Montréal, 1986.
  - (47) Szendrei Á., Symmetric algebras, *Contributions to General Algebra* 6, Wien, 1989, 259–280.
  - (48) Szendrei Á., Simple Abelian algebras, *J. Algebra* 151 (1992), 408–424.
  - (49) Szendrei Á., Term minimal algebras, *Algebra Universalis* 32 (1994), 439–477.
  - (50) Szendrei Á., A survey of clones closed under conjugation, in: *Galois connections and applications*, Math. Appl. vol. 565, Kluwer, 2004. 297–343.
  - (51) Tůma, J., Partitions, congruences and subgroup representations of lattices, in: *Lattice Theory and Its Applications*, a volume in honor of Garrett Birkhoff’s 80th birthday, Heldermann Verlag, 1995, 229–239.
  - (52) Valeriote, M. A., Finite simple Abelian algebras are strictly simple, *Proc. Amer. Math. Soc.* 108 (1990), 49–57.
  - (53) Willard, R., An overview of modern universal algebra, in: *Logic Colloquium 2004* (A. Andretta, K. Kearnes, P. Zambella eds.), Assoc. Symbolic Logic, Chicago, 2008, 197–220.
  - (54) Zádori L., Solvability of systems of polynomial equations over finite algebras, *Internat. J. Algebra Comput.* 17 (2007), 821–835.
- 15.** P. P. Pálffy, Á. Szendrei, Unary polynomials in algebras, II, *Contributions to General Algebra* 2, Klagenfurt, 1982 (G. Eigenthaler, H. K. Kaiser, W. B. Müller, W. Nöbauer editors) Verlag Hölder-Pichler-Tempsky (Wien, 1983), 273–290. **MR** 86h:08001b
- (1) Bereczky Á. and Maróti A., On groups with every normal subgroup transitive or semiregular, *J. Algebra* 319 (2008), 1733–1751.
  - (2) Dormán M., Intervals of collapsing monoids, *Acta Sci. Math.* 68 (2002), 561–569.
  - (3) Dormán M., Collapsing inverse monoids, *Algebra Universalis* 56 (2007), 241–261.
  - (4) Dormán M., Collapsing monoids consisting of permutations and constants, *Algebra Universalis* 58 (2008), 479–492.
  - (5) Fearnley, A., The clone of operations preserving a cycle with loops, *Algebra Universalis* 60 (2009), 91–106.
  - (6) Fearnley, A. and I. G. Rosenberg, Collapsing monoids containing permutations and constants, *Algebra Universalis* 50 (2003), 149–156.
  - (7) Ihringer, T., A remark on clones and permutation groups, *Contributions to General Algebra* 7, Wien, 1991, 197–200.
  - (8) Ihringer, T. and R. Pöschel, Collapsing clones, *Acta Sci. Math.* 58 (1993), 99–113.
  - (9) Larose, B. and L. Haddad, Colourings of hypergraphs, permutation groups and CSP’s, in: *Logic Colloquium 2004*, Cambridge University Press, 2008, 93–108.
  - (10) Kearnes, K. A., Categorical quasivarieties via Morita equivalence, *J. Symbolic Logic* 65 (2000), 839–856.
  - (11) Krokhin, A. A., Monoidal intervals in clone lattices (Russian), *Algebra i Logika* 34 (1995), No. 3, 288–310.
  - (12) Krokhin, A. A., On clones, transformation monoids, and associative rings, *Algebra Universalis* 37 (1997), 527–540.
  - (13) Krokhin, A. A., Congruences on clone lattices, II, *Order* 18 (2001), 151–159.
  - (14) Pinsker, M., Monoidal intervals of clones on infinite sets, *Discrete Math.* 308 (2008), 59–70.
- 16.** P. P. Pálffy, On the chromatic number of certain highly symmetric graphs, *Discrete Math.* 54 (1985), 31–38. **MR** 86i:05061
- (1) Andréka H., Complexity of equations valid in algebras of relations, Part I: Strong non-finitizability, *Ann. Pure Appl. Logic* 89 (1997), 149–209.
  - (2) Andréka H., S. D. Comer, J. X. Madarász, I. Németi, and A. T. Sayed, Epimorphisms in cylindric algebras and definability in finite variable logic, *Algebra Universalis* 61 (2009), 261–282.
  - (3) Andréka H. and I. Németi, *Cylindric set algebras*, *Lecture Notes Math.* 883, Springer, 1981.
  - (4) Henkin L., J. D. Monk, and A. Tarski, *Cylindric Algebras*, Part II, North-Holland, 1985.

**17.** E. Lukács, P. P. Pálffy, Modularity of the subgroup lattice of a direct square, *Arch. Math.* 46 (1986), 18–19. **MR** 87d:20031

- (1) Breaz, S., Commutativity criterions using normal subgroup lattices, *Rend. Sem. Mat. Univ. Padova* 122 (2009), 161–169.
- (2) Breaz, S. and G. Călugăreanu, Every abelian group is determined by a subgroup lattice, *Studia Sci. Math. Hungar.* 45 (2008), 135–137.
- (3) Călugăreanu, G., Abelian groups determined by subgroup lattices of direct powers, *Arch. Math.* 86 (2006), 97–100.
- (4) Czédli G., M. Erné, B. Šešelja, and A. Tepavčević, Characterizing triangles of closure operators with applications in general algebra, *Algebra Universalis* 62 (2009), 399–418.
- (5) Czédli G., B. Šešelja, and A. Tepavčević, On the semidistributivity of elements in weak congruence lattices of algebras and groups, *Algebra Universalis* 58 (2008), 349–355.
- (6) Kearnes, K. A. and Á. Szendrei, Groups with identical subgroup lattices in all powers, *J. Group Theory* 7 (2004), 385–402.
- (7) Pióro, K., On connections between hypergraphs and algebras, *Arch. Math. (Brno)* 36 (2000), 45–60.
- (8) Pióro, K., A few notes on subalgebra lattices, I, *Demonstratio Math.* 33 (2000), 695–706.
- (9) Pióro, K., On some influence of the weak subalgebra lattice on the subalgebra lattice, *Beiträge zur Algebra und Geometrie* 42 (2001), 185–205.
- (10) Pióro, K., A note on the weak subalgebra lattice of a unary algebra with constants, *Publ. Math. Debrecen* 58 (2001), 337–351.
- (11) Pióro, K., On subalgebra lattices of a finite unary algebra I, II, *Math. Bohem.* 126 (2001), 161–170, 171–181.
- (12) Pondělíček, B., Subalgebra modular distributive and boolean varieties of semigroups, *Czech. Math. J.* 42 (1992), 757–764.
- (13) Repnitskiĭ, V. B., Nilpotency of algebras and identities in subalgebra lattices, in: *Semigroups with applications, including semigroup rings* (S. Kublanovskiy, A. Mikhalev, P. Higgins, J. Ponizovskii, eds.) Saint-Petersburg, 1999. 317–330.
- (14) Schmidt, R., *Subgroup Lattices of Groups*, de Gruyter Expo. in Math., vol. 14, Walter de Gruyter, Berlin–New York, 1994.

**18.** E. Fried, P. P. Pálffy, On a problem of Baldwin and Berman, *Acta Sci. Math.* 49 (1985), 101–106. **MR** 87h:08002

**19.** M. Gould, J. A. Iskra, P. P. Pálffy, Embedding in globals of finite semilattices, *Czechoslovak Math. J.* 36 (1986), 87–92. **MR** 87d:20081

- (1) Pin, J-E., Power semigroups and related varieties of finite semigroups, in: *Semigroups and their applications*, Reidel, Dordrecht, 1987, 139–152.

**20.** P. P. Pálffy, On partial ordering of chief factors in solvable groups, *Manuscripta Math.* 55 (1986), 219–232. **MR** 87c:20046

- (1) Bertram, E. A., Lower bounds for the number of conjugacy classes in finite groups, In: *Ischia Group Theory 2004*, Contemporary Math. vol. 402, Amer. Math. Soc., 2004, 95–117.
- (2) Grätzer G., *Lattice Theory: Foundations*, Birkhäuser, 2011.
- (3) Pazderski, G., A partial ordering for the chief factors of a solvable group, *Acta Sci. Math.* 51 (1987), 163–183.
- (4) Růžička, P., J. Tůma and F. Wehrung, Distributive congruence lattices of congruence-permutable algebras, *J. Algebra* 311 (2007), 96–116.
- (5) Schmidt, R., *Subgroup Lattices of Groups*, de Gruyter Expo. in Math., vol. 14, Walter de Gruyter, Berlin–New York, 1994.
- (6) Torres, M., An approach to outer Fitting pairs defined by chief factors, *Commun. Algebra* 24 (1996), 3121–3129.

**21.** P. P. Pálffy, The arity of minimal clones, *Acta Sci. Math.* 50 (1986), 331–333. **MR** 88j:08004a

- (1) Börner, F., L. Haddad and R. Pöschel, Minimal partial clones, *Bull. Austral. Math. Soc.* 44 (1991), 405–415.

- (2) Csákány B., Függelék S. Burris és H. P. Sankappanavar „*Bevezetés az univerzális algebrába*” c. könyvének magyar kiadásához, Tankönyvkiadó, 1988.
  - (3) Csákány B., Minimal clones — a minicourse, *Algebra Universalis* 54 (2005), 73–89.
  - (4) Dudek, J., The unique minimal clone with three essentially binary operations, *Algebra Universalis* 27 (1990), 261–269.
  - (5) Dudek, J., On varieties of groupoid modes, *Demonstratio Math.* 27 (1994), 815–828.
  - (6) Dudek, J., Small idempotent clones I, *Czech. Math. J.* 48 (1998), 105–118.
  - (7) Dudek, J. and J. Tomasik, Affine spaces over  $\text{GF}(4)$ , *Algebra Universalis* 36 (1996), 279–285.
  - (8) Goldstern, M. and M. Pinsker, A survey of clones on infinite sets, *Algebra Universalis* 59 (2008), 365–403.
  - (9) Grätzer G. and A. Kisielewicz, A survey of some open problems on  $p_n$ -sequences and free spectra of algebras and varieties, in: *Universal Algebra and Quasigroup Theory*, Heldermann Verlag, Berlin, 1992, 57–88.
  - (10) Haddad, L., H. Machida and I. G. Rosenberg, Maximal and minimal partial clones, *J. Autom. Lang. Comb.* 7 (2002), 83–93.
  - (11) Ježek, J. and R. Quackenbush, Minimal clones of conservative functions, *Int. J. Algebra and Comput.* 5 (1995), 615–630.
  - (12) Lengvárszky Zs., A note on minimal clones, *Acta Sci. Math.* 50 (1986), 335–336.
  - (13) Quackenbush, R. W., A survey of minimal clones, *Aequationes Math.* 50 (1995), 3–16.
- 22.** P. P. Pálffy, Isomorphism problem for relational structures with a cyclic automorphism, *Europ. J. Combinatorics* 8 (1987), 35–43. **MR** 88i:05097
- (1) Ádám A., Néhány megoldatlan és megoldott problémáról az irányított gráfok elméletében, *Mat. Lapok* 17 (2011), 5–24.
  - (2) Alspach, B., Isomorphisms and Cayley graphs on abelian groups, in: *Graph symmetry: algebraic methods and applications*, Kluwer, 1997, 1–22.
  - (3) Berger, T. P., Automorphism groups and permutation groups of affine-invariant codes, In: *Finite Fields and Applications* (eds. S. Cohen, H. Niederreiter) LMS Lecture Notes Ser. vol. 233, Cambridge University Press, 1996, 31–45.
  - (4) Brand, N., Isomorphism of cyclic combinatorial objects, *Discrete Math.* 78 (1989), 73–81.
  - (5) Brand, N., Polynomial isomorphisms of combinatorial objects, *Graphs and Combinatorics* 7 (1991), 7–14.
  - (6) Brand, N., Isomorphism of objects admitting elementary abelian  $p$ -group actions, *Congr. Numer.* 84 (1991), 129–133.
  - (7) Cameron, P. J., M. Guidici, G. A. Jones, W. M. Kantor, M. H. Klin, D. Marušić, and L. A. Nowitz, Transitive permutation groups without semiregular subgroups, *J. London Math. Soc.* 66 (2002), 325–333.
  - (8) Chen, Z., On polynomial functions from  $\mathbb{Z}_n$  to  $\mathbb{Z}_m$ , *Discrete Math.* 137 (1995), 137–145.
  - (9) Chen, Z., On polynomial functions from  $\mathbb{Z}_{n_1} \times \mathbb{Z}_{n_2} \times \cdots \times \mathbb{Z}_{n_r}$  to  $\mathbb{Z}_m$ , *Discrete Math.* 162 (1996), 67–76.
  - (10) Conder, M. and C. H. Li, On isomorphisms of finite Cayley graphs, *European J. Combinatorics* 19 (1998), 911–919.
  - (11) Coppersmith, D., N. Howgrave-Graham, P. Q. Nguyen, and I. E. Shparlinski, Testing set proportionality and the Ádám isomorphism of circulant graphs, *J. Discr. Algor.* 4 (2006), 324–335.
  - (12) Dinitz, J. H. and D. R. Stinson, Room squares and related designs, in *Contemporary design theory*, Wiley, 1992, 137–204.
  - (13) Dobson, E., On solvable groups and circulant graphs, *Europ. J. Combinatorics* 21 (2000), 881–885.
  - (14) Dobson, E., On the Cayley isomorphism problem, *Discrete Math.* 247 (2002), 107–116.
  - (15) Dobson, E., On isomorphisms of abelian Cayley objects of certain orders, *Discrete Math.* 266 (2003), 203–215.
  - (16) Dobson, E., On the Cayley isomorphism problem for ternary relational structures, *J. Combinat. Theory A* 101 (2003), 225–248.
  - (17) Dobson, E., On the proof of a theorem of Pálffy, *Electron. J. Combin.* 13 (2006), Note 16, 4 pp.
  - (18) Dobson, E., On solvable groups and Cayley graphs, *J. Combinat. Theory Ser. B* 98 (2008), 1193–1214.
  - (19) Dobson, E., The isomorphism problem for Cayley ternary relational structures for some abelian groups of order  $8p$ , *Discrete Math.* 310 (2010), 2895–2909.

- (20) Dobson, E., On transitive ternary relational structures of order prime-squared, *Ars Combin.* 97A (2010), 15–32.
- (21) Dobson, E. and D. Marušić, On semiregular elements in solvable groups, *Commun. Algebra* 39 (2011), 1413–1426.
- (22) Dobson, E. and D. Witte, Transitive permutation groups on prime-squared degree, *J. Algebr. Combinat.* 16 (2002), 43–69.
- (23) Fang, X. G. and M. Y. Xu, On isomorphisms of Cayley graphs of small valency, *Algebra Colloq.* 1 (1994), 67–76.
- (24) Faradžev, I. A., A. A. Ivanov, and M. H. Klin, Galois correspondence between permutation groups and cellular rings (association schemes), *Graphs and Combinatorics* 6 (1990), 303–332.
- (25) Feng, Y-Q., Y-P. Liu and M-Y. Xu, On the isomorphisms of Cayley graphs of abelian groups, *J. Combinat. Theory B* 86 (2002), 38–53.
- (26) Grüttmüller, M., R. Rees, and N. Shalaby, Cyclically indecomposable triple systems that are decomposable, *J. Combin. Math. Combin. Comput.* 63 (2007), 103–122.
- (27) Hladnik, M., D. Marušić, and T. Pisanski, Cyclic Haar graphs, *Discrete Math.* 244 (2002), 137–152.
- (28) Horak, P. and A. Rosa, Extended Petersen graphs, *Discrete Math.* 299 (2005), 129–140.
- (29) Huang, Q. X., A classification of circulant DCI(CI)-digraphs of 2-power order, *Discrete Math.* 265 (2003), 71–84.
- (30) Huang, Q. X. and J. X. Meng, A classification of DCI (CI)-subsets for cyclic groups of odd prime power order, *J. Combinat. Theory B* 78 (2000), 24–34.
- (31) Huffman, W. C., The equivalence of two cyclic objects on  $pq$  elements, *Discrete Math.* 154 (1996), 103–127.
- (32) Huffman, W. C., V. Job, and V. Pless, Multipliers and generalized multipliers of cyclic objects and cyclic codes, *J. Combinat. Theory A* 62 (1993), 183–215.
- (33) Jiang, J. J., On the number counting of polynomial functions, *J. Math. Res. Expo.* 30 (2010), 241–248.
- (34) Jiang, J. J., G. H. Peng, Q. Sun and Q. F. Zhang, On polynomial functions over finite commutative rings, *Acta Math. Sin. (Engl. Ser.)* 22 (2006), 1047–1050.
- (35) Job, V. R., Some results on equivalence of cyclic codes, *Congr. Numer.* 84 (1991), 97–104.
- (36) Jungnickel, D., The isomorphism problem for abelian projective planes, *Appl. Algebra Engrg. Comm. Comput.* 19 (2008), 195–200.
- (37) Klin, M. H., V. Liskovets, and R. Pöschel, Analytical enumeration of circulant graphs with prime-square number of vertices, *Sém. Lothar. Combinat.* 36 (1996), B36d, 36 pp. (electronic)
- (38) Li, C. H., The finite groups with the 2-DCI property, *Commun. Algebra* 24 (1996), 1749–1757.
- (39) Li, C. H., The cyclic groups with the  $m$ -DCI property, *European J. Combinatorics* 18 (1997), 655–665.
- (40) Li, C. H., On finite groups with the Cayley invariant property, *Bull. Austral. Math. Soc.* 56 (1997), 253–261.
- (41) Li, C. H., On isomorphism of connected Cayley graphs, *Discrete Math.* 178 (1998), 109–122.
- (42) Li, C. H., On Cayley graphs of abelian groups, *J. Algebraic Combinat.* 8 (1998), 205–215.
- (43) Li, C. H., Isomorphisms of connected Cayley digraphs, *Graphs and Combinatorics* 14 (1998), 37–44.
- (44) Li, C. H., On isomorphisms of connected Cayley graphs, II, *J. Combinat. Theory B* 74 (1998), 28–34.
- (45) Li, C. H., On isomorphisms of connected Cayley graphs, III, *Bull. Austral. Math. Soc.* 58 (1998), 137–145.
- (46) Li, C. H., On finite groups with the Cayley isomorphism property, II, *J. Combinat. Theory A* 88 (1999), 19–35.
- (47) Li, C. H., Finite Abelian groups with the  $m$ -DCI property, *Ars Combinatoria* 51 (1999), 77–88.
- (48) Li, C. H., Finite CI-groups are soluble, *Bull. London Math. Soc.* 31 (1999), 419–423.
- (49) Li, C. H., Isomorphisms of finite Cayley digraphs of bounded valency, II, *J. Combinat. Theory A* 87 (1999), 333–346.
- (50) Li, C. H., On isomorphisms of finite Cayley graphs — a survey, *Discrete Math.* 256 (2002), 301–334.
- (51) Li, C. H. and C. E. Praeger, The finite simple groups with at most two fusion classes of every order, *Commun. Algebra* 24 (1996), 3681–3704.
- (52) Li, C. H. and C. E. Praeger, Finite groups in which any two elements of the same order are either fused or inverse-fused, *Commun. Algebra* 25 (1997), 3081–3118.

- (53) Li, C. H. and C. E. Praeger, On the isomorphism problem for finite Cayley graphs of bounded valency, *European J. Combinatorics* 20 (1999), 279–292.
- (54) Li, C. H. and S. Zhou, On isomorphisms of minimal Cayley graphs and digraphs, *Graphs and Combinatorics* 17 (2001), 307–314.
- (55) Liskovets, V. and R. Pöschel, Counting circulant graphs of prime-power order by decomposing into orbit enumeration problems, *Discrete Math.* 214 (2000), 173–191.
- (56) Liskovets, V. and R. Pöschel, Non-Cayley-isomorphic self-complementary circulant graphs, *J. Graph Theory* 34 (2000), 128–141.
- (57) Mans, B., F. Pappalardi, and I. Shparlinski, On the Ádám conjecture on circulant graphs, in: *Proc. COCOON'98, Lecture Notes Computer Sci.* 1449, Springer, 1998, 251–260.
- (58) Mans, B., F. Pappalardi, and I. Shparlinski, On the spectral Ádám property for circulant graphs, *Discrete Math.* 254 (2002), 309–329.
- (59) Mathon, R. and A. Rosa, On the  $(15, 5, \lambda)$ -family of BIBDs, *Discrete Math.* 77 (1989), 205–216.
- (60) Meng, J. X., Isomorphisms of hierarchical circulant digraphs, *Graph Theory Notes of New York* 31 (1996), 14–16.
- (61) Meng, J. X. and M. Y. Xu, On the isomorphism problem of Cayley graphs of Abelian groups, *Discrete Math.* 187 (1998), 161–169.
- (62) Muzychuk, M. E., On the structure of basic sets of Schur rings over cyclic groups, *J. Algebra* 169 (1994), 655–678.
- (63) Muzychuk, M. E., Ádám's conjecture is true in the square-free case, *J. Combinat. Theory A* 72 (1995), 118–134.
- (64) Muzychuk, M., On Ádám's conjecture for circulant graphs, *Discrete Math.* 167/168 (1997), 497–510. [corrected printing: 176 (1997), 285–298.]
- (65) Muzychuk, M., On the isomorphism problem for cyclic combinatorial objects, *Discrete Math.* 197/198 (1999), 589–606.
- (66) Muzychuk, M., A solution of the isomorphism problem for circulant graphs, *Proc. London Math. Soc.* 88 (2004), 1–41.
- (67) Muzychuk, M., M. Klin, and R. Pöschel, The isomorphism problem for circulant graphs via Schur ring theory, *DIMACS Ser. on Discrete Math. and Theor. Computer Sci.* vol. 56, 2001, 241–264.
- (68) Nowitz, L. A., A non-Cayley-invariant Cayley graph of the elementary Abelian group of order 64, *Discrete Math.* 110 (1992), 223–228.
- (69) Park, H. G., Polynomial isomorphisms of Cayley objects over the fields of order  $p^2$ , *J. Korean Math. Soc.* 30 (1993), 41–49.
- (70) Phelps, K. T., Isomorphism of cyclic twofold triple systems, *Ars Combinatoria* 22 (1986), 207–210.
- (71) Phelps, K. T., Isomorphism of circulant combinatorial structures, *Ars Combinatoria* 24A (1987), 195–210.
- (72) Phelps, K. T., Isomorphism problem for cyclic block designs, *Ann. Discrete Math.* 34 (1987), 385–392.
- (73) Phelps, K. T. and S. A. Vanstone, Isomorphism of strong starters in cyclic groups, *J. Combinat. Theory A* 57 (1991), 287–293.
- (74) Praeger, C. E., C. H. Li and A. C. Niemeyer, Finite permutation groups and finite vertex transitive graphs, in: *Graph symmetry: algebraic methods and applications*, Kluwer, 1997, 277–318.
- (75) Rayward-Smith, V. J., The discovery and enumeration of representative symbols for circular tournaments, *Intern. J. Math. Ed. Sci. Tech.* 22 (1991), 23–33.
- (76) Spiga, P., On the Cayley isomorphism problem for a digraph with 24 vertices, *Ars Math. Contemp.* 1 (2008), 38–43.
- (77) Tyshkevich, R. I. and Ngo Dac Than, Generalization of Babai's lemma about Cayley graphs (Russian), *Vestsi Akad. Navuk BSSR, Ser. Fiz.-Mat. Navuk* 1987, no. 4, 29–32.
- (78) Xu, M.-Y., Some work on vertex-transitive graphs by Chinese mathematicians, in: *Group Theory in China*, Kluwer, 1996, 224–254.
- (79) Xu, M.-Y., Automorphism groups and isomorphisms of Cayley digraphs, *Discrete Math.* 182 (1998), 309–319.
- (80) Xu, M.-Y. and J.-X. Meng, Weakly 3-DCI abelian groups, *Australas. J. Combin.* 13 (1996), 49–60.
- (81) Zhang, Q. F., Polynomial functions and permutation polynomials over some finite commutative rings, *J. Number Theory* 105 (2004), 192–202.

- 23.** P. Erdős, P. P. Pálffy, M. Szegedy,  $a \pmod{p} \geq b \pmod{p}$  for all primes  $p$  implies  $a = b$ , *Amer. Math. Monthly* 94 (1987), 169–170. **MR** 87k:11003
- 24.** P. P. Pálffy, Distributive congruence lattices of finite algebras, *Acta Sci. Math.* 51 (1987), 153–162. **MR** 88m:08003
- (1) Igoshin, V. I., A. V. Mikhalëv, V. N. Saliĭ, and L. A. Skornyakov, Concrete lattices, in: *Ordered sets and lattices II* (Russian), Univerzita Komenského, Bratislava, 1988, 241–321.
  - (2) Lampe, W. A., A perspective on algebraic representation of lattices, *Algebra Universalis* 31 (1994), 337–364.
  - (3) Lampe, W. A., Congruences, equational theories, and lattice representations, *Periodica Math. Hungar.* 32 (1996), 65–75.
  - (4) Vandenberg, J. E. and J. G. Raftery, Every algebraic chain is the congruence lattice of a ring, *J. Algebra* 162 (1993), 97–106.
- 25.** Erdős P., Pálffy P. P., Direkt szorzatra nem bontható csoportok rendjéről, *Matematikai Lapok* 33 (1986), 289–298. **MR** 89j:11093
- (1) Müller, T. W. and J-C. Schläge–Puchta, Normal growth of large groups, *Arch. Math.* 81 (2003), 609–613.
  - (2) Sándor J., D. S. Mitrinović, and B. Crstici, *Handbook of Number Theory*, vol. I, Springer, 2006.
- 26.** P. P. Pálffy, On Feit’s examples of intervals in subgroup lattices, *J. Algebra* 116 (1988), 471–479. **MR** 90a:20052
- (1) Ashrafi, A. R., The problem of intervals, *Southeast Asian Bull. Math.* 23 (1999), 551–557.
  - (2) Baddeley, R., A new approach to the finite lattice representation problem, *Periodica Math. Hungar.* 36 (1998), 17–59.
  - (3) Baddeley, R. and A. Lucchini, On representing finite lattices as intervals in subgroup lattices of finite groups, *J. Algebra* 196 (1997) 1–100.
  - (4) Brewster, B., M. B. Ward and Q.-H. Zhang, On self-normality and abnormality in the alternating groups, *Arch. Math.* 83 (2004), 385–393.
  - (5) Damian, E., A. Lucchini and F. Morini, Some properties of the probabilistic zeta function of finite simple groups, *Pacific J. Math.* 215 (2004), 3–14.
  - (6) Darafseh, M. R. and A. S. Ashrafi, The problem of intervals in the subgroup lattice of a finite group, *Proc. 27th Ann. Iranian Math. Conf.*, Shiraz, 1996 (K. Seddighi ed.), 37–41.
  - (7) Flavell, P., Overgroups of second maximal subgroups, *Arch. Math.* 64 (1995), 277–282.
  - (8) Freese, R., Subgroup lattices of groups by R. Schmidt, book review, *Bull. Amer. Math. Soc.* 33 (1996), 487–492.
  - (9) Horváth A., On some Jordan–Hölder–Dedekind type theorems in lattices, *Math. Pannon* 7 (1996), 209–213.
  - (10) Lucchini, A., On subgroups of index  $p^3$ , *Commun. Algebra* 19 (1991), 2851–2864.
  - (11) Lucchini, A., On imprimitive groups with small degree, *Rend. Sem. Mat. Univ. Padova* 86 (1991), 131–142.
  - (12) Lucchini, A., Intervals in subgroup lattices of finite groups, *Commun. Algebra* 22 (1994), 529–549.
  - (13) Lucchini, A., Representation of certain lattices as intervals in subgroup lattices, *J. Algebra* 164 (1994), 85–90.
  - (14) Ratanaprasert, C., A characterization of groups whose lattices of subgroups are  $n$ - $M_{p+1}$  chains for all primes  $p$ , *Silpakorn Univ. Sci. Techn. J.* 3 (2009), 42–47.
  - (15) Schmidt, R., *Subgroup Lattices of Groups*, de Gruyter Expo. in Math., vol. 14, Walter de Gruyter, Berlin–New York, 1994.
  - (16) Szendrei Á., *Clones in Universal Algebra*, Univ. Montréal, 1986.
  - (17) Tůma, J., Partitions, congruences and subgroup representations of lattices, in: *Lattice Theory and Its Applications*, a volume in honor of Garrett Birkhoff’s 80th birthday, Heldermann Verlag, 1995, 229–239.
  - (18) Walter, E., Reichhaltige Intervalle in Untergruppenverbänden, *Geom. Dedicata* 45 (1993), 25–40.
  - (19) Zhang, Q., On self-normality and abnormality in the alternating group  $A_p$ , *Arch. Math.* 73 (1999), 11–14.

- 27.** P. P. Pálffy, M. Szalay, Further probabilistic results on the symmetric  $p$ -groups, *Acta Math. Hung.* 53 (1989), 173–195. **MR** 90g:11109
- (1) Evans, S. N., Eigenvalues of random wreath products, *Electr. J. Probab.* 7 (2002), paper no. 9, 1–15.
  - (2) Schlage-Puchta, J.-C., The order of elements in Sylow  $p$ -subgroups of the symmetric group, *Acta Math. Hungar.* 105 (2004), 187–195.
- 28.** J. Demetrovics, G. O. H. Katona, P. P. Pálffy, On the number of unions in a family of sets, *Ann. New York Acad. Sci.* 555 (1989), 150–158. **MR** 90g:05005
- 29.** P. P. Pálffy, On the structure of a real crossed group algebra, *Bull. Austral. Math. Soc.* 41 (1990), 113–115. **MR** 91c:16028
- (1) Bódi B., *Bevezetés a csoportalgebrák elméletébe*, Kossuth Egyetemi Kiadó, Debrecen, 1996.
- 30.** P. P. Pálffy, Modular subalgebra lattices, *Algebra Universalis* 27 (1990), 220–229. **MR** 91c:08003
- (1) Baker, K. A., Bjarni Jónsson’s contributions in algebra, *Algebra Universalis* 31 (1994) 306–336.
  - (2) Hutchinson, G., Relation categories and coproduct congruence categories in universal algebra, *Algebra Universalis* 32 (1994), 609–647.
  - (3) Lampe, W. A., A perspective on algebraic representation of lattices, *Algebra Universalis* 31 (1994), 337–364.
  - (4) Libkin, L.,  $n$ -distributivity, dimension and Carathéodory’s theorem, *Algebra Universalis* 34 (1995), 72–95.
  - (5) Pióro, K., On connections between hypergraphs and algebras, *Arch. Math. (Brno)* 36 (2000), 45–60.
  - (6) Pióro, K., On some influence of the weak subalgebra lattice on the subalgebra lattice, *Beiträge zur Algebra und Geometrie* 42 (2001), 185–205.
  - (7) Pióro, K., A note on the weak subalgebra lattice of a unary algebra with constants, *Publ. Math. Debrecen* 58 (2001), 337–351.
  - (8) Pióro, K., On subalgebra lattices of a finite unary algebra I, II, *Math. Bohem.* 126 (2001), 161–170, 171–181.
  - (9) Pondělíček, B., Subalgebra modular distributive and boolean varieties of semigroups, *Czech. Math. J.* 42 (1992), 757–764.
  - (10) Repnitskii, V. B., Nilpotency of algebras and identities in subalgebra lattices, in: *Semigroups with applications, including semigroup rings* (S. Kublanovskiy, A. Mikhalev, P. Higgins, J. Ponizovskii, eds.) Saint-Petersburg, 1999. 317–330.
  - (11) Schmidt, S. E., Spaces of type  $n$  on partially ordered sets, *Geom. Dedicata* 30 (1989), 115–124. \*
  - (12) Wild, M., Join epimorphisms which preserve certain lattice identities, *Algebra Universalis* 27 (1990), 398–410.
- 31.** Gy. Károlyi, S. J. Kovács, P. P. Pálffy, Doubly transitive permutation groups with abelian stabilizers, *Aequationes Math.* 39 (1990), 161–166. **MR** 91g:20004
- (1) Bhattacharjee, M. and D. Macpherson, Strange permutation representations of free groups, *J. Austral. Math. Soc.* 74 (2003), 267–285.
  - (2) De Medts, T. and R. M. Weiss, Moufang sets and Jordan division algebras, *Math. Ann.* 335 (2006), 415–433.
  - (3) Dixon, J. D. and B. Mortimer, *Permutation Groups*, Springer, 1996.
  - (4) Macpherson, D., Permutation groups whose subgroups have just finitely many orbits, in: *Ordered Groups and Infinite Permutation Groups* (W. C. Holland ed.), Kluwer, 1996, 221–229.
  - (5) Neumann, P. M., Problem 12.62, *Unsolved problems in group theory*, the Kourovka notebook (V. D. Mazurov and E. I. Khukhro eds.), Novosibirsk, 1995.
  - (6) Neumann, P. M. and P. J. Rowley, Free action of Abelian groups on groups, *Geometry and Cohomology in Group Theory* (P. H. Kropholler, G. A. Niblo, R. Stöhr eds.), London Math. Soc. Lecture Notes Ser. 252, Cambridge Univ. Press, 1998, 291–295.
- 32.** P. P. Pálffy, Bounds for linear groups of odd order, Proc. Second Int. Group Theory Conf., Bressanone/Brixen, 1989 (O. H. Kegel, F. Menegazzo, G. Zacher editors) *Suppl. Rendiconti Circ. Mat. Palermo* 23 (1990), 253–263. **MR** 91h:20068
- (1) Berkovich, Y., Solvable permutation groups of maximal derived length, *Algebra Colloq.* 4 (1997), 175–186.

- (2) Birszki B., Primitive sharp permutation groups with large solvable subgroups, *J. Group Theory* 10 (2007), 287–298.
  - (3) Glasby, S. P., The shape of soluble groups with odd order, in: *Groups St Andrews 2005*, vol. 2, Cambridge University Press, 2007, 432–437.
  - (4) Guo, W.-B., B. Hu and V. S. Monakhov, On indices of subnormal subgroups of finite soluble groups, *Commun. Algebra* 33 (2005), 855–863.
  - (5) Monakhov, V. S., On indices of maximal subgroups of finite solvable groups, *Algebra i Logika* 43 (2004), 411–424. *Algebra Logic* 43 (2004), 230–237.
  - (6) Monakhov, V. S. and A. A. Trofimuk, Finite solvable groups in which the Sylow  $p$ -subgroups are either bicyclic or of order  $p^3$ , *J. Math. Sci.* 167 (2010), 810–816.
  - (7) Pyber L., Finite groups have many conjugacy classes, *J. London Math. Soc.* 46 (1992), 239–249.
  - (8) Pyber L., Asymptotic results for permutation groups, *DIMACS series in Discrete Math. and Theoretical Computer Sci.* vol. 11, AMS, 1993, 197–219.
  - (9) Seress Á., The minimal base size of primitive solvable permutation groups, *J. London Math. Soc.* 53 (1996), 243–255.
  - (10) Trofimuk, A. A., The derived length of finite groups with restrictions on Sylow subgroups, *Math. Notes* 87 (2010), 264–270.
  - (11) Vdovin, E. P., Regular orbits of solvable linear  $p'$ -groups, *Siberian Electr. Math. Rep.* 4 (2007), 345–360.
- 33.** P. P. Pálffy, Isomorphism types of minimal non-nilpotent groups, *Arch. Math.* 55 (1990), 224–230. **MR** 91h:20035
- 34.** P. P. Pálffy, J. Saxl, Congruence lattices of finite algebras and factorizations of groups, *Communications in Algebra* 18 (1990), 2783–2790. **MR** 91h:08003
- (1) Baumeister, B., Factorizations of primitive permutation groups, *J. Algebra* 194 (1997), 631–653.
  - (2) Lucchini, A., On subgroups of index  $p^3$ , *Commun. Algebra* 19 (1991), 2851–2864.
  - (3) Lucchini, A., Representation of certain lattices as intervals in subgroup lattices, *J. Algebra* 164 (1994), 85–90.
  - (4) Schmidt, S. E., *Grundlegungen zu einer allgemeinen affinen Geometrie*, Birkhäuser, 1995.
  - (5) Tůma, J., Partitions, congruences and subgroup representations of lattices, in: *Lattice Theory and Its Applications*, a volume in honor of Garrett Birkhoff’s 80th birthday, Heldermann Verlag, 1995, 229–239.
- 35.** B. A. Davey, J. B. Nation, R. N. McKenzie, P. P. Pálffy, Braids and their monotone clones, *Algebra Universalis* 32 (1994), 153–176. **MR** 95i:08005
- (1) Abels, H., A projection property for buildings, *Discrete Math.* 192 (1998), 3–10.
  - (2) Delhomme, C., Infinite projection properties, *Math. Logic Quart.* 44 (1998), 481–492.
  - (3) Delhomme, C., Projection properties and reflexive binary relations, *Algebra Universalis* 41 (1999), 255–281.
  - (4) Hazan, S., Two properties of projective orders, *Order* 9 (1992), 233–238.
  - (5) Hazan, S., On triangle-free projective graphs, *Algebra Universalis* 35 (1996), 185–196.
  - (6) Hazan, S. and V. Neumann-Lara, Two order invariants related to the fixed point property, *Order* 15 (1998), 97–111.
  - (7) Larose, B., A property of projective ordered sets, *European J. Combinatorics* 13 (1992), 371–378.
  - (8) Larose, B., Strongly projective graphs, *Canad. J. Math.* 54 (2002), 757–768.
  - (9) Larose, B., Taylor operation on finite reflexive structures, *Int. J. Math. Comput. Sci.* 1 (2006), 1–21.
  - (10) Larose, B. and L. Zádori, The complexity of the extendibility problem for finite posets, *SIAM J. Discrete Math.* 17 (2003), 114–121.
  - (11) Pouzet, M., A projection property and Arrow’s impossibility theorem, *Discrete Math.* 192 (1998), 293–308.
  - (12) Pouzet, M. and I. G. Rosenberg, Small clones and the projection property, *Algebra Universalis* 63 (2010), 37–44.
  - (13) Pouzet, M., I. G. Rosenberg and M. G. Stone, A projection property, *Algebra Universalis* 36 (1996), 159–189.
  - (14) Ratanaprasert, C., All maximal clones containing a crown, *Southeast Asian Bull. Math.* 27 (2004), 1089–1100.
  - (15) Ratanaprasert, C., On monotone clones of strings, *Southeast Asian Bull. Math.* 28 (2004), 671–683.

- (16) Zádori L., Series parallel posets with nonfinitely generated clones, *Order* 10 (1993), 305–316.
- 36.** P. P. Pálffy, Intervals in subgroup lattices of finite groups, Groups'93 Galway/St Andrews, vol. 2 (C. M. Campbell, T. C. Hurley, E. F. Robertson, S. J. Tobin, J. J. Ward editors) London Math. Soc. Lecture Notes Ser., vol. 212, Cambridge University Press (1995) 482–494. **MR** 96k:20043
- (1) Ashrafi, A. R., The problem of intervals, *Southeast Asian Bull. Math.* 23 (1999), 551–557.
  - (2) Baddeley, R., A new approach to the finite lattice representation problem, *Periodica Math. Hungar.* 36 (1998), 17–59.
  - (3) Börner, F., A remark on the finite lattice representation problem, *Contributions to General Algebra* 11 (I. Chajda et al. eds.), Verlag Johannes Heyn, Klagenfurt, 1999, 5–38.
  - (4) Börner, F., *Krasneralgebren*, Logos Verlag, Berlin, 2000.
  - (5) Darafseh, M. R. and A. S. Ashrafi, The problem of intervals in the subgroup lattice of a finite group, *Proc. 27th Ann. Iranian Math. Conf.*, Shiraz, 1996 (K. Seddighi ed.), 37–41.
  - (6) Schmidt, R., New results and methods in the theory of subgroup lattices of groups, in: *Topics in infinite groups* (M. Curzio, F. de Giovanni, eds.) Arache, 2001. 239–275.
- 37.** P. P. Pálffy, Cs. Szabó, An identity for subgroup lattices of Abelian groups, *Algebra Universalis* 33 (1995), 191–195. **MR** 96b:20038
- (1) Burns, R. G. and S. Oates-Williams, Varieties of groups and normal-subgroup lattices — a survey, *Algebra Universalis* 32 (1994), 145–152.
  - (2) Czédli G., The congruence variety of metaabelian groups is not self-dual, *Acta Math. Univ. Comenianae* 63 (1994), 155–159.
  - (3) Czédli G. and K. E. Horváth, All congruence lattice identities implying modularity have Mal'tsev conditions, *Algebra Universalis* 50 (2003), 69–74.
  - (4) Czédli G. and K. E. Horváth, Reflexive relations and Mal'tsev conditions for congruence lattice identities in modular varieties, *Acta Univ. Palack. Olomouc. Fac. Rerum Natur. Math.* 41 (2002), 43–53.
  - (5) Czédli G., E. K. Horváth, and P. Lipparini, Optimal Mal'tsev conditions for congruence modular varieties, *Algebra Universalis* 53 (2005), 267–279.
  - (6) Freese, R., Alan Day's early work: congruence identities, *Algebra Universalis* 34 (1995), 4–23.
  - (7) Freese, R., Subgroup lattices of groups by R. Schmidt, book review, *Bull. Amer. Math. Soc.* 33 (1996), 487–492.
  - (8) Grätzer G., *General Lattice Theory*, 2nd ed., Birkhäuser, 1998.
  - (9) Hobby, D. and R. McKenzie, *The structure of finite algebras*, Contemporary Math., vol. 76, AMS, 2nd printing, 1996.
  - (10) Lampe, W. A., A perspective on algebraic representation of lattices, *Algebra Universalis* 31 (1994), 337–364.
  - (11) Lipparini, P., A non-trivial congruence implication between identities weaker than modularity, *Acta Sci. Math.* 68 (2002), 593–609.
  - (12) Repnitskiĭ, V. B., Nilpotency of algebras and identities in subalgebra lattices, in: *Semigroups with applications, including semigroup rings* (S. Kublanovskiy, A. Mikhalev, P. Higgins, J. Ponizovskii, eds.) Saint-Petersburg, 1999. 317–330.
  - (13) Schmidt, R., New results and methods in the theory of subgroup lattices of groups, in: *Topics in infinite groups* (M. Curzio, F. de Giovanni, eds.) Arache, 2001. 239–275.
  - (14) Shevrin, L. N. and A. J. Ovsyannikov, *Semigroups and their subsemigroup lattices*, Kluwer, 1996.
  - (15) Takách G., Two lattice identities for projective geometries, *Acta Sci. Math.* 62 (1996), 71–79.
- 38.** P. P. Pálffy, Cs. Szabó, Congruence varieties of groups and Abelian groups, Lattice Theory and Its Applications, a volume in honor of Garrett Birkhoff's 80th birthday, Darmstadt, 1991 (K. A. Baker, R. Wille editors) Heldermann Verlag (Lemgo, 1995) 163–183. **MR** 96k:20052
- (1) Czédli G., The congruence variety of metaabelian groups is not self-dual, *Acta Math. Univ. Comenianae* 63 (1994), 155–159.
  - (2) Freese, R., Subgroup lattices of groups by R. Schmidt, book review, *Bull. Amer. Math. Soc.* 33 (1996), 487–492.
  - (3) Grätzer G., *General Lattice Theory*, 2nd ed., Birkhäuser, 1998.
  - (4) Kvirikashvili, T. G., Projective geometries over rings and modular lattices, *J. Math. Sci.* 153 (2008), 495–505.

- (5) Mainetti, M. and C. H. Yan, Arguesian identities in linear lattices, *Adv. Math.* 144 (1999), 50–93.
  - (6) Mainetti, M. and C. H. Yan, Geometric identities in lattice theory, *J. Combinat. Theory A* 91 (2000), 411–450.
  - (7) Repnitskiĭ, V. B., Varieties of algebras with nontrivial identities on subalgebra lattices, *Dokl. Akad. Nauk* 356 (1997), 452–454. \*
  - (8) Schmidt, R., New results and methods in the theory of subgroup lattices of groups, in: *Topics in infinite groups* (M. Curzio, F. de Giovanni, eds.) Arache, 2001. 239–275.
  - (9) Takách G., Two lattice identities for projective geometries, *Acta Sci. Math.* 62 (1996), 71–79.
  - (10) Yan, C. H., The theory of commuting Boolean  $\sigma$ -algebras, *Adv. Math.* 144 (1999), 94–116.
  - (11) Yan, C. H., Arguesian identities in the congruence variety of Abelian groups, *Adv. Math.* 150 (2000), 36–79.
- 39.** R. Freud, P. P. Pálffy, On the possible number of elements of given order in a finite group, *Israel J. Math.* 93 (1996), 345–358. **MR** 97f:20028
- 40.** L. Lévai, P. P. Pálffy, On binary minimal clones, *Acta Cybernetica* 12 (1996), 279–294. **MR** 97m:08005
- (1) Börner, F., L. Haddad and R. Pöschel, Minimal partial clones, *Bull. Austral. Math. Soc.* 44 (1991), 405–415. \*
  - (2) Bulatov, A., Combinatorial problems raised from 2-semilattices, *J. Algebra* 298 (2006), 321–339.
  - (3) Cho, J. R. and J. Dudek, Medial idempotent groupoids, *J. Austral. Math. Soc. Ser. A* 68 (2000), 312–320.
  - (4) Csákány B., Minimal clones — a minicourse, *Algebra Universalis* 54 (2005), 73–89.
  - (5) Dudek, J., On varieties of groupoid modes, *Demonstratio Math.* 27 (1994), 815–828. \*
  - (6) Dudek, J., Small idempotent clones I, *Czech. Math. J.* 48 (1998), 105–118. \*
  - (7) Haddad, L., H. Machida and I. G. Rosenberg, Maximal and minimal partial clones, *J. Autom. Lang. Comb.* 7 (2002), 83–93.
  - (8) Kearnes, K. A. and Á. Szendrei, The classification of commutative minimal clones, *Discuss. Math. Algebra and Stoch. Methods* 19 (1999), 147–178. \*
  - (9) Krokhin, A. A., Congruences on clone lattices, II, *Order* 18 (2001), 151–159.
  - (10) Machida H. and M. Pinsker, Some polynomials generating minimal clones, *J. Mult. Valued Logic Soft Comput.* 13 (2007), 353–365.
  - (11) Quackenbush, R. W., A survey of minimal clones, *Aequationes Math.* 50 (1995), 3–16. \*
  - (12) Szendrei Á., Idempotent algebras with restrictions on subalgebras, *Acta Sci. Math.* 51 (1987), 251–268. \*
  - (13) Waldhauser T., Minimal clones with weakly abelian representations, *Acta Sci. Math.* 69 (2003), 505–521.
  - (14) Waldhauser T., Minimal clones with few majority operations, *Acta Sci. Math.* 73 (2007), 471–486.
- 41.** L. Babai, A. J. Goodman, W. M. Kantor, E. M. Luks, P. P. Pálffy, Short presentations for finite groups, *J. Algebra* 194 (1997), 79–112. **MR** 98h:20044
- (1) Arvind, V. and B. Das, SZK proofs for black-box group problems, *Theory Comput. Syst.* 43 (2008), 100–117.
  - (2) Bray, J. N., M. D. E. Conder, C. R. Leedham–Green and E. A. O’Brien, Short presentations for alternating and symmetric groups, *Trans. Amer. Math. Soc.* 363 (2011), 2277–2285.
  - (3) Cameron, P. J., Permutations, in: *Paul Erdős and his Mathematics, II*, Bolyai Soc. Math. Studies vol. 11 (G. Halász, L. Lovász, M. Simonovits, V. T. Sós eds.), Springer, 2002, 205–239.
  - (4) Cohen, A., S. H. Murray and D. E. Taylor, Computing in groups of Lie type, *Math. Comp.* 73 (2004), 1477–1498.
  - (5) Conder, M. D. E., C. R. Leedham–Green and E. A. O’Brien, Constructive recognition of  $\text{PSL}(2, q)$ , *Trans. Amer. Math. Soc.* 358 (2006), 1203–1221.
  - (6) Eick, B. and A. Hulpke, Computing the maximal subgroups of a permutation group, I, in: *Groups and Computation, III* (W. M. Kantor, Á. Seress eds.), Walter de Gruyter, 2001, 155–168.
  - (7) Hulpke, A., Computing normal subgroups, in: *Proc. ISAAC’98*, ACM Press, New York, 1998, 194–198.
  - (8) Hulpke, A., Constructing transitive permutation groups, *J. Symbolic Comput.* 39 (2005), 1–30.
  - (9) Hulpke, A. and Á. Seress, Short presentations for three-dimensional unitary groups, *J. Algebra* 245 (2001), 719–729.
  - (10) Korchagina, I. and A. Lubotzky, On presentations and second cohomology of some finite simple groups, *Publ. Math. Debrecen* 69 (2006), 341–352.

- (11) Lübeck, F., K. Magaard, E. A. O'Brien, Constructive recognition of  $SL_3(q)$ , *J. Algebra* 316 (2007), 619–633.
  - (12) Lubotzky, A., Finite presentations of adelic groups, the congruence kernel and cohomology of finite simple groups, *Pure Appl. Math. Quart.* 1 (2005), 241–256.
  - (13) Lubotzky, A. and D. Segal, *Subgroup Growth*, Birkhäuser, 2003.
  - (14) Mann, A., Enumerating finite groups and their defining relations, *J. Group Theory* 1 (1998), 59–64.
  - (15) Neunhöffer, M. and Á. Seress, A data structure for a uniform approach to computations with finite groups, In: *ISSAC 2006* (ed. J.-G. Dumas) ACM Press, New York, 2006, 254–261.
  - (16) O'Brien, E. A., Towards effective algorithms for linear groups, In: *Finite Geometries, Groups, and Computation* (eds. A. Hulpke, R. Liebler, T. Pentilla, Á. Seress) de Gruyter, 2006, 163–190.
  - (17) O'Brien, E. A., Algorithms for matrix groups, In: *Groups St Andrews 2009 in Bath*, vol. 2 (eds. C. M. Campbell et al.) LMS Lecture Notes Ser. 388, Cambridge University Press, 2011.
  - (18) Pyber L., Asymptotic results for simple groups and some applications, *DIMACS series in Discrete Math. and Theoretical Computer Sci.* vol. 28, AMS, 1997, 309–327. \*
  - (19) Seress Á., *Permutation Group Algorithms*, Cambridge University Press, 2003.
  - (20) Torán, J., Arthur–Merlin games and the problem of isomorphism testing, *Lecture Notes Computer Sci.* 3526, Springer, 2005, 495–506.
  - (21) Vershik, A. and M. Vsemirnov, The local stationary presentation of the alternating groups and the normal form, *J. Algebra* 319 (2008), 4222–4229.
  - (22) Yalçınkaya, S., Black box groups, *Turkish J. Math.* 31 (2007), suppl., 171–210.
- 42.** P. P. Pálffy, The number of conjugacy classes in some quotients of the Nottingham group, *Proc. Edinburgh Math. Soc.* 41 (1998), 369–384. **MR** 99f:20030
- (1) Avitabile, M., Some loop algebras of Hamiltonian Lie algebras, *Int. J. Algebra Comput.* 12 (2002), 535–567.
  - (2) Camina, R., The Nottingham group, in: *New horizons in pro-p groups* (M. du Sautoy, D. Segal, A. Shalev eds.), Birkhäuser, 2000, 205–221.
  - (3) Ershov, M., New just-infinite pro- $p$  groups of finite width and subgroups of the Nottingham group, *J. Algebra* 275 (2004), 419–449.
  - (4) Hegedűs P., The Nottingham group for  $p = 2$ , *J. Algebra* 246 (2001), 55–69.
  - (5) Jaikin Zapirain, A., On the number of conjugacy classes in finite  $p$ -groups, *J. London Math. Soc.* 68 (2003), 699–711.
  - (6) Klopsch, B., Automorphisms of the Nottingham group, *J. Algebra* 223 (2000), 37–56.
  - (7) Sangroniz, J., Conjugacy classes and characters in some quotients of the Nottingham group, *J. Algebra* 211 (1999), 26–41.
- 43.** P. P. Pálffy, L. Pyber, Small groups of automorphisms, *Bull. London Math. Soc.* 30 (1998), 386–390. **MR** 99g:20040
- (1) Birszki B., Primitive sharp permutation groups with large solvable subgroups, *J. Group Theory* 10 (2007), 287–298.
  - (2) Keller, T. M., Orbits in finite group actions, in: *Groups St Andrews 2001 in Oxford, LMS Lecture Notes Series* 305, 306–331.
  - (3) Keller, T. M., The  $k(GV)$ -problem revisited, *J. Austral. Math. Soc.* 79 (2005), 257–276.
  - (4) Lev, A. and Y. Roddity, On Hering decomposition of  $DK_n$  induced by group actions on conjugacy classes, *Europ. J. Combinatorics* 21 (2000), 379–393.
  - (5) Moretó, A., Large orbits of  $p$ -groups on characters and applications to character degrees, *Israel J. Math.* 146 (2005), 243–251.
- 44.** E. W. Kiss, P. P. Pálffy, A lattice of normal subgroups that is not embeddable in the subgroup lattice of an abelian group, *Math. Scandinavica* 83 (1998), 169–176. **MR** 99m:20059
- (1) Czédli G., The congruence variety of metaabelian groups is not self-dual, *Acta Math. Univ. Comenianae* 63 (1994), 155–159.
  - (2) Schmidt, R., New results and methods in the theory of subgroup lattices of groups, in: *Topics in infinite groups* (M. Curzio, F. de Giovanni, eds.) Arache, 2001. 239–275.

**45.** P. P. Pálffy, On the character degree graph of solvable groups, I: Three primes, *Periodica Math. Hungar.* 36 (1998), 61–65. **MR** 2000c:20019

- (1) Dolfi, S., E. Pacifici, L. Sanus, and P. Spiga, On the vanishing prime graph of solvable groups, *J. Group Theory* 13 (2010), 189–206.
- (2) Lewis, M. L., A solvable group whose character degree graph has diameter 3, *Proc. Amer. Math. Soc.* 130 (2001), 625–630.
- (3) Lewis, M. L., Solvable groups with character degree graphs having 5 vertices and diameter 3, *Commun. Algebra* 30 (2002), 5485–5503.
- (4) Lewis, M. L., Classifying character degree graphs with 5 vertices, in: *Finite Groups 2003* (C. Y. Ho, P. Sin, P. H. Tiep, A. Turull eds.), de Gruyter, 2004, 247–265.
- (5) Lewis, M. L., An overview of graphs associated with character degrees and conjugacy class sizes in finite groups, *Rocky Mountain J. Math.* 38 (2008), 175–211.
- (6) Lewis, M. L., J. K. McVey, A. Moretó, L. Sanus, A graph associated with the  $\pi$ -character degrees of a group, *Arch. Math.* 80 (2003), 570–577.
- (7) Lewis, M. L. and D. L. White, Connectedness of degree graphs of nonsolvable groups, *J. Algebra* 266 (2003), 51–76.
- (8) Manz, O., Some new developments and open questions in the character theory of finite groups, *Progress in Math.* vol. 95, Birkhäuser, 1991, 461–476. \*
- (9) Manz, O., W. Willems, and T. R. Wolf, The diameter of the character degree graph, *J. reine angew. Math.* 402 (1989), 181–198. \*
- (10) Manz, O. and T. R. Wolf, *Representations of solvable groups*, London Math. Soc. Lecture Notes 185, Cambridge Univ. Press, 1993. \*
- (11) McVey, J. K., Bounding graph diameters of solvable groups, *J. Algebra* 280 (2004), 415–425.
- (12) Moretó, A. and L. Sanus, Character degree graphs, blocks and normal subgroups, *J. Group Theory* 8 (2005), 461–465.
- (13) Moretó, A. and P. H. Tiep, Prime divisors of character degrees, *J. Group Theory* 11 (2008), 341–356.

**46.** P. Erdős, P. P. Pálffy, On the order of directly indecomposable groups, *Discrete Math.* 200 (1999), 165–179. **MR** 2000e:20037

- (1) de Cornulier, Y. and P. de la Harpe, Décompositions de groupes par produit direct et groupes de Coxeter, in: *Geometric Group Theory* (G. N. Arzhantseva, J. Burillo, L. Bartholdi, E. Ventura eds.), Birkhäuser, 2007, 75–102.

**47.** P. P. Pálffy, Estimations for the order of various permutation groups, Contributions to General Algebra 12, Proc. Vienna Conf., June 3–6, 1999, Verlag Johannes Heyn, Klagenfurt, 2000, 37–49. **MR** 2001f:20003

**48.** P. P. Pálffy, On the character degree graph of solvable groups, II: Disconnected graphs, *Studia Sci. Math. Hungar.* 38 (2001), 339–355. **MR** 2002m:20012

- (1) Casolo, C., Some linear actions of finite groups with  $q'$ -orbits, *J. Group Theory* 13 (2010), 503–534.
- (2) He, L.-G., The weak version of Huppert’s  $\rho$ - $\sigma$ -conjecture, *Int. J. Algebra* 1 (2007), 317–320.
- (3) Iranmanesh, M. A. and C. E. Praeger, Bipartite divisor graphs for integer subsets, *Graphs Combin.* 26 (2010), 95–105.
- (4) Isaacs, I. M., Character degree graphs and normal subgroups, *Trans. Amer. Math. Soc.* 356 (2004), 1155–1183.
- (5) Lewis, M. L., Solvable groups whose degree graphs have two connected components, *J. Group Theory* 4 (2001), 255–275.
- (6) Lewis, M. L., Bounding Fitting heights of character degree graphs, *J. Algebra* 242 (2001), 810–818.
- (7) Lewis, M. L., Solvable groups with character degree graphs having 5 vertices and diameter 3, *Commun. Algebra* 30 (2002), 5485–5503.
- (8) Lewis, M. L., Classifying character degree graphs with 5 vertices, in: *Finite Groups 2003* (C. Y. Ho, P. Sin, P. H. Tiep, A. Turull eds.), de Gruyter, 2004, 247–265.
- (9) Lewis, M. L., An overview of graphs associated with character degrees and conjugacy class sizes in finite groups, *Rocky Mountain J. Math.* 38 (2008), 175–211.
- (10) Lewis, M. L. and D. L. White, Connectedness of degree graphs of nonsolvable groups, *J. Algebra* 266 (2003), 51–76.

- 49.** G. Czédli, R. Halaš, K. A. Kearnes, P. P. Pálffy, Á. Szendrei, The join of two minimal clones and the meet of two maximal clones, *Algebra Universalis* 45 (2001), 161–178. **MR** 2001k:08002
- (1) Csákány B., Minimal clones — a minicourse, *Algebra Universalis* 54 (2005), 73–89.
  - (2) Haddad, L., H. Machida and I. G. Rosenberg, Maximal and minimal partial clones, *J. Autom. Lang. Comb.* 7 (2002), 83–93.
  - (3) Pantović, J., B. Rodić, and G. Vojvodić, Hyperclone lattice and embeddings, *Novi Sad J. Math.* 36 (2006), 87–95.
  - (4) Rosenberg, I. G. and H. Machida, Gigantic pairs of minimal clones — characterization and existence, *Multiple-valued Logic* 7 (2001), 129–148.
- 50.** P. P. Pálffy, On the density of the set of orders of certain groups, Paul Erdős and his Mathematics. II, Bolyai Society Mathematical Studies, vol. 11, Budapest, 2002, 513–523. **MR** 2003j:11114
- 51.** L. Babai, W. M. Kantor, P. P. Pálffy, Á. Seress, Black-box recognition of finite simple groups of Lie type by statistics of element orders, *J. Group Theory* 5 (2002), 383–401. **MR** 2003i:20022
- (1) Altseimer, C. and A. V. Borovik, Probabilistic recognition of orthogonal and symplectic groups, in: *Groups and Computation, III* (W. M. Kantor, Á. Seress eds.), Walter de Gruyter, 2001, 1–20.
  - (2) Bäärnhielm, H., Recognising the Suzuki groups in their natural representations, *J. Algebra* 300 (2006), 171–198.
  - (3) Borovik, A. V., Centralisers of involutions in black box groups, in: *Computational and statistical group theory, Contemporary Math.* 298 (2002), 7–20.
  - (4) Brooksbank, P. A., Fast constructive recognition of black box symplectic groups, *J. Algebra* 320 (2008), 885–909.
  - (5) Conder, M. D. E., C. R. Leedham–Green and E. A. O’Brien, Constructive recognition of  $\text{PSL}(2, q)$ , *Trans. Amer. Math. Soc.* 358 (2006), 1203–1221.
  - (6) Holmes, T. E., S. A. Linton, E. A. O’Brien, A. J. E. Ryba, and R. A. Wilson, Constructive membership in black-box groups, *J. Group Theory* 11 (2008), 747–763.
  - (7) Holt, D. F. with B. Eick, E. A. O’Brien, *Handbook of computational group theory*, Chapman&Hall/CRC, Boca Raton, 2005
  - (8) Holt, D. F. and E. A. O’Brien, A computer-assisted analysis of some matrix groups, *J. Algebra* 300 (2006), 199–212.
  - (9) Leedham–Green, C., The computational matrix group project, in: *Groups and Computation, III* (W. M. Kantor and Á. Seress, eds.), Walter de Gruyter, 2001. 229–247.
  - (10) Liebeck, M. W. and E. A. O’Brien, Finding the characteristic of a group of Lie type, *J. London Math. Soc.* 75 (2007), 741–754.
  - (11) Lübeck, F., K. Magaard, E. A. O’Brien, Constructive recognition of  $\text{SL}_3(q)$ , *J. Algebra* 316 (2007), 619–633.
  - (12) O’Brien, E. A., The matrix recognition project: recent developments, *Oberwolfach Reports* 3 (2006), 1801–1802.
  - (13) O’Brien, E. A., Towards effective algorithms for linear groups, In: *Finite Geometries, Groups, and Computation* (eds. A. Hulpke, R. Liebler, T. Pentilla, Á. Seress) de Gruyter, 2006, 163–190.
  - (14) O’Brien, E. A., Algorithms for matrix groups, In: *Groups St Andrews 2009 in Bath*, vol. 2 (eds. C. M. Campbell et al.) LMS Lecture Notes Ser. 388, Cambridge University Press, 2011.
  - (15) Parker, C. W. and R. A. Wilson, Recognising simplicity of black-box groups by constructing involutions and their centralisers, *J. Algebra* 324 (2010), 885–915.
  - (16) Rowley, P. and P. Taylor, Normalizers of 2-subgroups in black-box groups, *LMS J. Comput. Math.* 13 (2010), 307–319.
  - (17) Yalçınkaya, S., Black box groups, *Turkish J. Math.* 31 (2007), suppl., 171–210.
- 52.** P. P. Pálffy, O. Steinfeld, Some group theoretic problems inspired by ring theoretic analogies, *Math. Pannonica* 13 (2002), 167–174. **MR** 2003j:20076
- 53.** P. P. Pálffy, Groups and lattices, Groups St Andrews 2001 in Oxford, vol. 2 (C. M. Campbell, E. F. Robertson, G. C. Smith editors) London Math. Soc. Lecture Notes Ser., vol. 305, Cambridge University Press (2003), 428–454. **MR** 2005b:20051

- (1) Breaz, S., Commutativity criterions using normal subgroup lattices, *Rend. Sem. Mat. Univ. Padova* 122 (2009), 161–169.
  - (2) Călugăreanu, G., Abelian groups determined by subgroup lattices of direct powers, *Arch. Math.* 86 (2006), 97–100.
  - (3) Guralnick, R. and F. Xu, On a subfactor generalization of Wall’s conjecture, *J. Algebra* 332 (2011), 457–468.
  - (4) Xu, F., On representing some lattices of intermediate subfactors of finite index, *Adv. Math.* 220 (2009), 1317–1356.
  - (5) Xu, F., On intermediate subfactors of Goodman–de la Harpe–Jones subfactors, *Commun. Math. Phys.* 298 (2010), 707–739.
- 54.** P. Hegedűs, P. P. Pálffy, Finite modular congruence lattices, *Algebra Universalis* 54 (2005), 105–120. **MR** 2007f:08001
- (1) Grätzer G., *Lattice Theory: Foundations*, Birkhäuser, 2011.
  - (2) Kaarli, K. and V. Kuchmei, Order affine completeness of lattices with Boolean congruence lattice, *Czech Math. J.* 57(132) (2007), 1049–1065.
  - (3) Kaarli, K., V. Kuchmei, and S. E. Schmidt, Sublattices of the direct product, *Algebra Universalis* 59 (2008), 85–95.
  - (4) Snow, J., Subdirect products of hereditary congruence lattices, *Algebra Universalis* 54 (2005), 65–71.
  - (5) Snow, J., Almost distributive sublattices and congruence heredity, *Algebra Universalis* 57 (2007), 3–14.
  - (6) Snow, J., OPC lattices and congruence heredity, *Algebra Universalis* 58 (2008), 59–71.
- 55.** P. P. Pálffy, A non-power-hereditary congruence lattice representation of  $M_3$ , *Publ. Math. Debrecen* 69 (2006), 361–366. **MR** 2007h:08002
- (1) Snow, J., OPC lattices and congruence heredity, *Algebra Universalis* 58 (2008), 59–71.
- 56.** P. P. Pálffy, Maximal clones and maximal permutation groups, *Discuss. Math. Gen. Algebra Appl.* 27 (2007), 277–291. **MR** 2008m:08006
- 57.** C. H. Li, Z. P. Lu, P. P. Pálffy, Further restrictions on the structure of finite CI-groups, *J. Algebraic Comb.* 26 (2007), 161–181. **MR** 2008g:20048
- (1) Dobson, E., On the Cayley isomorphism problem for ternary relational structures, *J. Combinat. Theory A* 101 (2003), 225–248. \*
  - (2) Muzychuk, M. and I. Ponomarenko, Schur rings, *European J. Combin.* 30 (2009), 1526–1539.
- 58.** P. P. Pálffy, Some functionally complete minimal clones, *Acta Sci. Math.* 73 (2007), 487–495. **MR** 2008m:08005
- (1) Kearnes, K. A., On the functional completeness of simple tournaments, *Algebra Universalis* 61 (2009), 475–478.
- 59.** L. Babai, P. P. Pálffy, J. Saxl, On the number of  $p$ -regular elements in simple groups, *LMS J. Comput. Math.* 12 (2009), 82–119.
- (1) Borovik, A. V., Centralisers of involutions in black box groups, in: *Computational and statistical group theory, Contemporary Math.* 298 (2002), 7–20. \*
  - (2) Liebeck, M. W. and E. A. O’Brien, Finding the characteristic of a group of Lie type, *J. London Math. Soc.* 75 (2007), 741–754. \*
  - (3) O’Brien, E. A., Algorithms for matrix groups, In: *Groups St Andrews 2009 in Bath*, vol. 2 (eds. C. M. Campbell et al.) LMS Lecture Notes Ser. 388, Cambridge University Press, 2011.
  - (4) Parker, C. W. and R. A. Wilson, Recognising simplicity of black-box groups by constructing involutions and their centralisers, *J. Algebra* 324 (2010), 885–915.
  - (5) Shalev, A., Random generation of finite simple groups by  $p$ -regular or  $p$ -singular elements, *Israel J. Math.* 125 (2001), 53–60. \*
- 60.** P. P. Pálffy, Three remarks on absolutely solvable groups, *Beiträge Algebra Geom.* 50 (2009), 533–540.
- (1) Beidleman, J. C. and H. Heineken, Fitting cores and supersolvable groups, *Ric. Mat.* 59 (2010), 319–326.