

Bibliography

- Aalipour, G., Akbari, S., Cameron, P. J., Nikandish, R. and Shaveisi, F.: 2017, On the structure of the power graph and the enhanced power graph of a group, *Electron. J. Combin.* **24**(3), #P3.16.
- Abawajy, J., Kelarev, A. and Chowdhury, M.: 2013, Power graphs: A survey, *Electron. J. Graph Theory Appl.* **1**(2), 125–147.
- Abdollahi, A. and Hassanabadi, A. M.: 2007, Noncyclic graph of a group, *Comm. Algebra* **35**(7), 2057–2081.
- Abdollahi, A. and Hassanabadi, A. M.: 2009, Non-cyclic graph associated with a group, *J. Algebra Appl.* **8**(02), 243–257.
- Afkhami, M., Jafarzadeh, A., Khashyarmanesh, K. and Mohammadikhah, S.: 2014, On cyclic graphs of finite semigroups, *J. Algebra Appl.* **13**(07), 1450035.
- Ali, F. and Li, Y.: 2019, The connectivity and the spectral radius of commuting graphs on certain finite groups, *Linear and Multilinear Algebra*, 1–14, <https://doi.org/10.1080/03081087.2019.1700893> .
- Ali, F., Salman, M. and Huang, S.: 2016, On the commuting graph of dihedral group, *Comm. Algebra* **44**(6), 2389–2401.
- Ambrozie, C., Bračić, J., Kuzma, B. and Müller, V.: 2013, The commuting graph

- of bounded linear operators on a hilbert space, *Journal of Functional Analysis* **264**(4), 1068–1087.
- Anitha, T. and Rajkumar, R.: 2019, On the power graph and the reduced power graph of a finite group, *Comm. Algebra* **47**(8), 3329–3339.
- Araújo, J., Bentz, W. and Konieczny, J.: 2015, The commuting graph of the symmetric inverse semigroup, *Israel J. Math.* **207**(1), 103–149.
- Araújo, J., Kinyon, M. and Konieczny, J.: 2011, Minimal paths in the commuting graphs of semigroups, *European J. Combin.* **32**(2), 178–197.
- Aschbacher, M.: 2000, *Finite group theory*, Vol. 10, Cambridge University Press.
- Ashrafi, A. R., Gholami, A. and Mehranian, Z.: 2017, Automorphism group of certain power graphs of finite groups, *Electronic Journal of Graph Theory and Applications* **5**(1), 70–82.
- Bates, C., Bundy, D., Perkins, S. and Rowley, P.: 2003a, Commuting involution graphs for finite Coxeter groups, *J. Group Theory* **6**(4), 461–476.
- Bates, C., Bundy, D., Perkins, S. and Rowley, P.: 2003b, Commuting involution graphs for symmetric groups, *J. Algebra* **266**(1), 133–153.
- Bauer, T. and Greenfeld, B.: 2016, Commuting graphs of boundedly generated semigroups, *European J. Combin.* **56**, 40–45.
- Bera, S. and Bhuniya, A. K.: 2017, On enhanced power graphs of finite groups, *J. Algebra Appl.* **17**(8), 1850146.
- Bera, S., Dey, H. K. and Mukherjee, S. K.: 2021, On the connectivity of enhanced power graphs of finite groups, *Graphs Combin.* **37**(2), 591–603.
- Bhuniya, A. K. and Bera, S.: 2017, Normal subgroup based power graphs of a finite group, *Comm. Algebra* **45**(8), 3251–3259.

- Bondy, J. A., Murty, U. S. R. et al.: 1976, *Graph theory with applications*, Elsevier Publishing, New York.
- Bosák, J.: 1964, *The graphs of semigroups*, Publ. House Czechoslovak Acad. Sci., Prague.
- Brauer, R. and Fowler, K. A.: 1955, On groups of even order, *Ann. of Math.* **62**(3), 565–583.
- Brauer, R. and Fowler, K. A.: 1991, The Laplacian spectrum of graphs, *Graph Theory, Combinatorics, and Application* **2**, 871–898.
- Budden, F.: 1985, Cayley graphs for some well-known groups, *The Mathematical Gazette* **69**(450), 271–278.
- Bundy, D.: 2006, The connectivity of commuting graphs, *J. Comb. Theory* **113**(6), 995–1007.
- Burton, D. M.: 2006, *Elementary number theory*, Tata McGraw-Hill Education, New Delhi.
- Cameron, P. J.: 2010, The power graph of a finite group, II, *J. Group Theory* **13**(6), 779–783.
- Cameron, P. J. and Ghosh, S.: 2011, The power graph of a finite group, *Discrete Math.* **311**(13), 1220–1222.
- Cameron, P. J. and Van Lint, J. H.: 1991, *Designs, graphs, codes and their links*, London Mathematical Society Student Texts 22, Cambridge: Cambridge University Press.
- Chakrabarty, I., Ghosh, S., Mukherjee, T. and Sen, M. K.: 2009, Intersection graphs of ideals of rings, *Discrete Math.* **309**(17), 5381–5392.

- Chakrabarty, I., Ghosh, S. and Sen, M. K.: 2009, Undirected power graphs of semigroups, *Semigroup Forum* **78**(3), 410–426.
- Chartrand, G., Johns, G. L. and Tian, S. L.: 1993, Detour distance in graphs, *Ann. Discrete Math.* **55**, 127–136.
- Chartrand, G. and Zhang, P.: 2004, *Introduction to Graph Theory*, McGraw-Hill Education.
- Chartranda, G., Eroha, L., , Johnsonb, M. A. and Oellermann, O. R.: 2000, Resolvability in graphs and the metric dimension of a graph, *Disc. Appl. Math* **105**, 99–113.
- Chattopadhyay, S., Patra, K. L. and Sahoo, B. K.: 2020a, Laplacian eigenvalues of the zero divisor graph of the ring \mathbb{Z}_n , *Linear Algebra Appl.* **584**, 267–286.
- Chattopadhyay, S., Patra, K. L. and Sahoo, B. K.: 2020b, Minimal cut-sets in the power graph of certain finite non-cyclic groups, *Commun. Algebra*. DOI:10.1080/00927872.2020.1831005 .
- Chudnovsky, M., Robertson, N., Seymour, P. and Thomas, R.: 2006, The strong perfect graph theorem, *Ann. of Math.* **164**(1), 51–229.
- Ćirić, M. and Bogdanović, S.: 2000, The five-element Brandt semigroup as a forbidden divisor, *Semigroup Forum* **61**(3), 363–372.
- Curtin, B. and Pourgholi, G. R.: 2014, Edge-maximality of power graphs of finite cyclic groups, *J. Algebraic Combin.* **40**(2), 313–330.
- Cvetkovic, D., Simic, S. and Rowlinson, P.: 2009, *An introduction to the theory of graph spectra*, Cambridge University Press.
- Dalal, S. and Kumar, J.: 2020, Chromatic number of the cyclic graph of infinite semigroup, *Graphs Combin.* **36**(1), 109–113.

- Darafsheh, M. R. and Poursalavati, N. S.: 2001, On the existence of the orthogonal basis of the symmetry classes of tensors associated with certain groups, *SUT J. Math.* **37**(1), 1–17.
- Dolžan, D., Kokol Bukovšek, D. and Kuzma, B.: 2017, On diameter of components in commuting graphs, *Linear Algebra Appl.* **522**, 161–174.
- Dolžan, D.: 2016, The metric dimension of the total graph of a finite commutative ring, *Canadian Mathematical Bulletin* **59**(4), 748–759.
- Doostabadi, A., Erfanian, A. and Jafarzadeh, A.: 2015, Some results on the power graphs of finite groups, *Scienceasia* **41**, 73–78.
- Doostabadi, A. and Ghouchan, M. F. D.: 2015, On the connectivity of proper power graphs of finite groups, *Comm. Algebra* **43**(10), 4305–4319.
- Dupont, L. A., Mendoza, D. G. and Rodríguez, M.: 2017a, The enhanced quotient graph of the quotient of a finite group, *arXiv:1707.01127*.
- Dupont, L. A., Mendoza, D. G. and Rodríguez, M.: 2017b, The rainbow connection number of enhanced power graph, *arXiv:1708.07598*.
- Dutta, J. and Kanti Nath, R.: 2017, Spectrum of commuting graphs of some classes of finite groups, *Matematika* **33**(1), 87–95.
- Feng, M., Ma, X. and Wang, K.: 2015, The structure and metric dimension of the power graph of a finite group, *European Journal of Combinatorics* **43**, 82–97.
- Gilbert, N. D. and Samman, M.: 2010, Endomorphism seminear-rings of Brandt semigroups, *Comm. Algebra* **38**(11), 4028–4041.
- Giudici, M. and Parker, C.: 2013, There is no upper bound for the diameter of the commuting graph of a finite group, *J. Combin. Theory Ser. A* **120**(7), 1600–1603.

- Grove, L. C.: 1980, *Algebra*, AP, New York.
- Hamzeh, A. and Ashrafi, A. R.: 2017, Automorphism groups of supergraphs of the power graph of a finite group, *European J. Combin.* **60**, 82–88.
- Hao, Y., Gao, X. and Luo, Y.: 2011, On the Cayley graphs of Brandt semigroups, *Comm. Algebra* **39**(8), 2874–2883.
- Harary, F., Melter and A, R.: 1976, On the metric dimension of a graph, *Ars combin* **2**, 191–195.
- Hayat, U., Umer, M., Gutman, I., Davvaz, B. and de Celis, Á. N.: 2019, A novel method to construct nssd molecular graphs, *Open Mathematics* **17**(1), 1526–1537.
- Hell, P. and Nešetřil, J.: 1992, The core of a graph, *Discrete Math.* **109**(1-3), 117–126.
- Hernando, C., Mora, M., Pelayo, I. M., Seara, C. and Wood, D. R.: 2010, Extremal graph theory for metric dimension and diameter, *Electron. J. Combin.* **17**(1), #R30.
- Howie, J. M.: 1995, *Fundamentals of semigroup theory*, Oxford University Press, Oxford.
- Howie, J. M. and Ribeiro, M. I. M.: 1999, Rank properties in finite semigroups, *Comm. Algebra* **27**(11), 5333–5347.
- Howie, J. M. and Ribeiro, M. I. M.: 2000, Rank properties in finite semigroups II: the small rank and the large rank, *Southeast Asian Bull. Math.* **24**(2), 231–237.
- Hungerford, T. W.: 1974, *Algebra*, Springer-Verlag, New York.
- Imani, N., Sarbazi-Azad, H., Akl, S. G. and Moinzadeh, P.: 2009, Chromatic sets of power graphs and their application to resource placement in multicomputer networks, *Comput. Math. Appl.* **58**(3), 403–413.

- Iranmanesh, A. and Jafarzadeh, A.: 2008, On the commuting graph associated with the symmetric and alternating groups, *J. Algebra Appl.* **7**(01), 129–146.
- J. Cameron, P.: 2006, Graph homomorphism, *Combinatorics study group notes* .
- Jackson, M. and Volkov, M.: 2009, Undecidable problems for completely 0-simple semigroups, *J. Pure Appl. Algebra* **213**(10), 1961–1978.
- James, G. and Liebeck, M.: 1993, *Representations and characters of groups*, Cambridge University Press, Cambridge.
- Kakkar, V. and Rawat, G.: 2018, Commuting graphs of generalized dihedral groups, *Discrete Math. Algorithms Appl.* **11**(02), 1950024.
- Káta-Urbán, K. and Szabó, C.: 2006, Free spectrum of the variety generated by the five element combinatorial Brandt semigroup, *Semigroup Forum* **73**(2), 253–260.
- Kelarev, A.: 2003, *Graph algebras and automata*, Marcel Dekker, Inc., New York.
- Kelarev, A. and Quinn, S.: 2000, A combinatorial property and power graphs of groups, *Contrib. General Algebra* **12**(58), 3–6.
- Kelarev, A. and Quinn, S.: 2002, Directed graphs and combinatorial properties of semigroups, *J. Algebra* **251**(1), 16–26.
- Kelarev, A., Quinn, S. and Smolikova, R.: 2001, Power graphs and semigroups of matrices, *Bull. Austral. Math. Soc.* **63**(2), 341–344.
- Kelarev, A., Ryan, J. and Yearwood, J.: 2009, Cayley graphs as classifiers for data mining: the influence of asymmetries, *Discrete Math.* **309**(17), 5360–5369.
- Kelarev, A. V.: 2002, *Ring constructions and applications*, World Scientific, River Edge, NJ.

- Kelarev, A. V.: 2004, Labelled Cayley graphs and minimal automata, *Australas. J. Combin.* **30**, 95–101.
- Khosravi, B. and Khosravi, B.: 2012, A characterization of Cayley graphs of Brandt semigroups, *Bull. Malays. Math. Sci. Soc. (2)* **35**(2), 399–410.
- Khuller, S., Raghavachari, B. and Rosenfeld, A.: 1994, *Localization in graphs. Technical*, Technical Report CS-TR-3326, University of Maryland at College Park.
- Kumar, J.: 2014, *Affine near-semirings over Brandt semigroups*, PhD thesis, IIT Guwahati.
- Li, C., Xu, B. and Huang, H.: <https://doi.org/10.1007/s00373-019-02106-2>, 1-9, 2019, Cayley graphs over Green * relations of abundant semigroups, *Graphs Combin.* .
- Lu, M., Wan, D., Wang, L.-P. and Zhang, X.-D.: 2014, Algebraic cayley graphs over finite fields, *Finite Fields and Their Applications* **28**, 43–56.
- Ma, X., Feng, M. and Wang, K.: 2018, The strong metric dimension of the power graph of a finite group, *Discrete Appl. Math.* **239**, 159–164.
- Ma, X., Fu, R. and Lu, X.: 2018, On the independence number of the power graph of a finite group, *Indag. Math.* **29**(2), 794–806.
- Ma, X. L., Wei, H. Q. and Zhong, G.: 2013, The cyclic graph of a finite group, *Algebra* **2013**, 1–7.
- Ma, X. and She, Y.: 2020, The metric dimension of the enhanced power graph of a finite group, *J. Algebra Appl.* **19**(01), 2050020.
- Ma, X. and Su, H.: 2020, Finite groups whose noncyclic graphs have positive genus, *Acta Mathematica Hungarica* **162**(2), 618–632.

- Ma, X., Walls, G. L. and Wang, K.: 2019a, Finite groups with star-free noncyclic graphs, *Open Mathematics* **17**(1), 906–912.
- Ma, X., Walls, G. L. and Wang, K.: 2019b, Power graphs of (non)orientable genus two, *Comm. Algebra* **47**(1), 276–288.
- Mahmiani, A.: 2016, Normal cayley graphs of certain groups which are locally primitive, *Facta Universitatis, Series: Mathematics and Informatics* **31**(1), 73–78.
- Margolis, S., Rhodes, J. and Silva, P. V.: 2018, On the subsemigroup complex of an aperiodic Brandt semigroup, *Semigroup Forum* **97**(1), 7–31.
- Mirzargar, M., Pach, P. and Ashrafi, A. R.: 2014, Remarks on commuting graph of a finite group, *Electron. Notes Discrete Math.* **45**, 103–106.
- Mitchell, J. D.: 2004, *Turán's graph theorem and maximum independent sets in Brandt semigroups*, 151–162, World Sci. Publ., River Edge, NJ.
- Mitsch, H. and Petrich, M.: 2001, Restricting idempotents in E -inverse semigroups, *Acta Sci. Math. (Szeged)* **67**(3-4), 555–570.
- Moghaddamfar, A. R., Rahbariyan, S. and Shi, W. J.: 2014, Certain properties of the power graph associated with a finite group, *J. Algebra Appl.* **13**(7), 1450040.
- Montellano-Ballesteros, J. J. and Arguello, A. S.: <https://doi.org/10.1007/s00373-019-02090-7>, 1-8, 2019, Hamiltonian cycles in normal Cayley graphs, *Graphs Combin.* .
- Neumann, B.: 1976, A problem of paul erdős on groups, *Journal of the Australian Mathematical Society* **21**(4), 467–472.
- Oellermann, O. R. and Peters-Fransen, J.: 2007, The strong metric dimension of graphs and digraphs, *Discrete Applied Mathematics* **155**(3), 356–364.

- Panda, R. P.: 2020, A combinatorial characterization of finite groups of prime exponent, *Indag. Math.* **31**(1), 1–6.
- Panda, R. P., Dalal, S. and Kumar, J.: 2021, On the enhanced power graph of a finite group, *Comm. Algebra* **49**(4), 1697–1716.
- Panda, R. P. and Krishna, K. V.: 2018a, On connectedness of power graphs of finite groups, *J. Algebra Appl.* **17**(10), 1850184.
- Panda, R. P. and Krishna, K. V.: 2018b, On minimum degree, edge-connectivity and connectivity of power graphs of finite groups, *Comm. Algebra* **46**(7), 3182–3197.
- Pezzott, J. C. M. and Nakaoka, I. N.: 2019, On groups whose commuting graph on a transversal is strongly regular, *Discrete Math.* **342**(12), 111626, 8.
- Plesník, J.: 1975, Critical graphs of given diameter, *Acta Fac. Rerum Natur. Univ. Comenian. Math.* **30**, 71–93.
- Pourghobadi, K. and Jafari, S. H.: 2018, The diameter of power graphs of symmetric groups, *Journal of Algebra and Its Applications* **17**(12), 1850234.
- Rajkumar, R. and Anitha, T.: 2019, Laplacian spectrum of reduced power graph of certain finite groups, *Linear and Multilinear Algebra* , 1–18.
- Rapinchuk, A., Segev, Y. and Seitz, G.: 2002, Finite quotients of the multiplicative group of a finite dimensional division algebra are solvable, *J. Amer. Math. Soc.* **15**(4), 929–978.
- Robinson, D. J. S.: 1996, *A course in the theory of groups*, Vol. 80 of *Graduate Texts in Mathematics*, 2nd edn, Springer-Verlag, New York.
- Sadr, M. M.: 2009, Pseudo-amenability of Brandt semigroup algebras, *Comment. Math. Univ. Carolin.* **50**(3), 413–419.

- Sadr, M. M.: 2012, Morita equivalence of Brandt semigroup algebras, *Int. J. Math. Math. Sci.* **2012**, 1–7.
- Sebő, A. and Tannier, E.: 2004, On metric generators of graphs, *Math. Oper. Res.* **29**(2), 383–393.
- Segev, Y.: 1999, On finite homomorphic images of the multiplicative group of a division algebra, *Ann. of Math.* **149**(1), 219–251.
- Segev, Y.: 2001, The commuting graph of minimal nonsolvable groups, *Geometriae dedicata* **88**(1), 55–66.
- Segev, Y. and Seitz, G. M.: 2002, Anisotropic groups of type A_n and the commuting graph of finite simple groups, *Pacific journal of mathematics* **202**(1), 125–225.
- Shitov, Y.: 2016, A matrix ring with commuting graph of maximal diameter, *J. Combin. Theory Ser. A* **141**, 127–135.
- Shitov, Y.: 2017, Coloring the power graph of a semigroup, *Graphs Combin.* **33**(2), 485–487.
- Shitov, Y.: 2018, Distances on the commuting graph of the ring of real matrices, *Mat. Zametki* **103**(5), 765–768.
- Slater, J. P.: 1975, Leaves of trees, *Congr. Number* **14**, 549–559.
- Tolue, B.: 2020, The twin non-commuting graph of a group, *Rendiconti del Circolo Matematico di Palermo Series 2* **69**, 591–599.
- Tong-Viet, H. P.: 2014, Finite groups whose prime graphs are regular, *J. Algebra* **397**, 18–31.
- West, D. B.: 1996, *Introduction to Graph Theory*, Second edition, Prentice Hall.

- Yi, E.: 2013, On strong metric dimension of graphs and their complements, *Acta Math. Sin. (Engl. Ser.)* **29**(8), 1479–1492.
- Zahirović, S., Bošnjak, I. and Madarász, R.: 2020, A study of enhanced power graphs of finite groups, *J. Algebra Appl.* **19**(4), 2050062.
- Zelinka, B.: 1973, Intersection graphs of lattices, *Matematický časopis* **23**(3), 216–222.
- Zhou, B. and Cai, X.: 2010, On detour index, *MATCH Commun. Math. Comput. Chem.* **63**(1), 199–210.