

## References

- [1] J. Alva-Samos, J. J. Montellano-Ballesteros. Rainbow connection in some digraphs. *Graphs Combin.*, 32(6):2199–2209, 2016. <https://doi.org/10.1007/s00373-016-1723-x>
- [2] J. Alva-Samos, J. J. Montellano-Ballesteros. A note on the rainbow connectivity of tournaments. *arXiv:1504.07140[math.CO]*.
- [3] J. Alva-Samos, J. J. Montellano-Ballesteros. Rainbow connection of cacti and some infinity digraphs. *Discuss. Math. Graph Theory*, 37(2):301–313, 2017. <https://doi.org/10.7151/dmgt.1953>
- [4] P. Ananth, M. Nasre, and K.K. Sarpatwar. Rainbow connectivity: Hardness and tractability. In *FSTTCS 2011*, pages 241–251, 2011.
- [5] J. Bang-Jensen, G. Gutin. Digraphs: Theory, Algorithms and Applications, 2nd Edition. Springer-Verlag, London, 2009. <https://doi.org/10.1007/978-1-84800-998-1>
- [6] M. Basavaraju, L.S. Chandran, D. Rajendraprasad, and A. Ramaswamy. Rainbow connection number and radius. *Graphs Combin.*, 30(2):275–285, 2014. <https://doi.org/10.1007/s00373-012-1267-7>
- [7] M. Basavaraju, L.S. Chandran, D. Rajendraprasad, and A. Ramaswamy. Rainbow connection number of graph power and graph products. *Graph Combin.*, 30(6):1363–1382, 2014. <https://doi.org/10.1007/s00373-013-1355-3>
- [8] C. Berge. Graphs and Hypergraphs, 2nd Edition, in: North-Holland Mathematical Library, vol. 6, North-Holland Publishing Co., American Elsevier Publishing Co., Amsterdam, London, New York, 1976, p. ix+528.
- [9] J. Bode, H. Harborth. The minimum size of  $k$ -rainbow connected graphs of given order. *Discrete Math.*, 313:1924–1928, 2013. <https://doi.org/10.1016/j.disc.2012.07.023>
- [10] B. Bollobás. Random Graphs, 2nd Edition. Cambridge University Press, 2001.
- [11] J.A. Bondy, U.S.R. Murty. Graph Theory. Graduate Texts in Mathematics, Vol. 244, Springer, 2008.
- [12] Q. Cai, X. Li, and J. Song. Solutions to conjectures on the  $(k, \ell)$ -rainbow index of complete graphs. *Networks*, 62:220–224, 2013. <https://doi.org/10.1002/net.21513>
- [13] Q. Cai, X. Li, and J. Song. The  $(k, \ell)$ -rainbow index of random graphs. *Bull. Malays. Math. Sci. Soc.*, 39:765–771, 2016. <https://doi.org/10.1007/s40840-015-0301-3>

- [14] Q. Cai, X. Li, and J. Song. The  $(k, \ell)$ -rainbow index for complete bipartite and multipartite graphs. *Bull. Malays. Math. Sci. Soc.*, 39:1225–1236, 2016. <https://doi.org/10.1007/s40840-016-0348-9>
- [15] Q. Cai, X. Li, and Y. Zhao. Note on the upper bound of the rainbow index of a graph. *Discrete Appl. Math.*, 209:68–74, 2016. <https://doi.org/10.1016/j.dam.2015.10.019>
- [16] Q. Cai, X. Li, and Y. Zhao. The 3-rainbow index and connected dominating sets. *J. Comb. Optim.*, 31(3):1142–1159, 2016. <https://doi.org/10.1007/s10878-014-9815-0>
- [17] Q. Cai, Y. Ma, and J. Song. Rainbow connection numbers of ladders and Mobius ladders. *Ars. Comb.*, 131:321–330, 2017.
- [18] Y. Caro, A. Lev, Y. Roditty, Z. Tuza, and R. Yuster. On rainbow connection. *Electron. J. Combin.*, 15(1), 2008, R57.
- [19] R.P. Carpentier, H. Liu, M. Silva, and T. Sousa. Rainbow connection for some families of hypergraphs. *Discrete Math.*, 327:40–50, 2014. <https://doi.org/10.1016/j.disc.2014.03.013>
- [20] S. Chakraborty, E. Fischer, A. Matsliah, and R. Yuster. Hardness and algorithms for rainbow connectivity. *J. Comb. Optim.*, 21:330–347, 2011. <https://doi.org/10.1007/s10878-009-9250-9>
- [21] G. Chartrand, G.L. Johns, K.A. McKeon, and P. Zhang. Rainbow connection in graphs. *Math. Bohem.*, 133:85–98, 2008.
- [22] G. Chartrand, G. Johns, K. McKeon, and P. Zhang. The rainbow connectivity of a graph. *Networks*, 54(2):75–81, 2009. <https://doi.org/10.1002/net.20296>
- [23] G. Chartrand, G.L. Johns, K.A. McKeon, and P. Zhang. On the rainbow connectivity of cages. *Congr. Numer.*, 184:209–222, 2007.
- [24] L.S. Chandran, A. Das, D. Rajendraprasad, and N.M. Varma. Rainbow connection number and connected dominating sets. *J. Graph Theory*, 71:206–218, 2012. <https://doi.org/10.1002/jgt.20643>
- [25] L.S. Chandran, D. Rajendraprasad. Rainbow colouring of split and threshold graphs. *Computing and Combinatorics, COCOON 2012*, pages 181–192, 2012. [https://doi.org/10.1007/978-3-642-32241-9\\_16](https://doi.org/10.1007/978-3-642-32241-9_16)
- [26] L.S. Chandran, D. Rajendraprasad. Inapproximability of rainbow colouring. In *FSTTCS 2013*, pages 153–162, 2013.
- [27] L.S. Chandran, D. Rajendraprasad, and M. Tesař. Rainbow colouring of split graphs. *Discrete Appl. Math.*, 216:98–113, 2017. <https://doi.org/10.1016/j.dam.2015.05.021>
- [28] G. Chartrand, F. Okamoto, and P. Zhang. Rainbow trees in graphs and generalized connectivity. *Networks*, 55 (2010), 360–367.
- [29] L. Chen, B. Huo, and Y. Ma. Hardness results for total rainbow connection of graphs. *Discuss. Math. Graph Theory*, 36(2):355–362, 2016. <https://doi.org/10.7151/dmgt.1856>

- [30] L. Chen, X. Li, and H. Lian. Further hardness results on the rainbow vertex-connection number of graphs. *Theor. Comput. Sci.*, 481:18–23, 2013.  
<https://doi.org/10.1016/j.tcs.2013.02.012>
- [31] L. Chen, X. Li, and H. Lian. Nordhaus-Gaddum-type theorem for rainbow connection number of graphs. *Graphs Combin.*, 29:1235–1247, 2013.  
<https://doi.org/10.1007/s00373-012-1183-x>
- [32] L. Chen, X. Li, H. Liu, J. Liu. On various (strong) rainbow connection numbers of graphs. *arXiv:1601.01063v3 [math.CO]*.
- [33] L. Chen, X. Li, and Y. Shi. The complexity of determining the rainbow vertex-connection of graphs. *Theor. Comput. Sci.*, 412:4531–4535, 2011.  
<https://doi.org/10.1016/j.tcs.2011.04.032>
- [34] L. Chen, X. Li, K. Yang, and Y. Zhao. The 3-rainbow index of a graph. *Discuss. Math. Graph Theory*, 35(1):81–94, 2015. <https://doi.org/10.7151/dmgt.1780>
- [35] X. Chen, X. Li, and H. Lian. Rainbow  $k$ -connectivity of random bipartite graphs. Accepted for publication in *Acta Math. Appl. Sin.*
- [36] B. Courcelle, J.A. Makowsky, and U. Rotics. Linear time solvable optimization problems on graphs of bounded clique-width. *Theory of Computing Systems*, 33(2):125–150, 2000.  
<https://doi.org/10.1007/s002249910009>
- [37] M. Cygan, F.V. Fomin, L. Kowalik, D. Lokshantov, D. Marx, M. Pilipczuk, M. Pilipczuk, and S. Saurabh. Parameterized Algorithms. Springer, 2015.  
<https://doi.org/10.1007/978-3-319-21275-3>
- [38] D. Jr. Dellamonica, C. Magnant, and D. Martin. Rainbow paths. *Discrete Math.*, 310:774–781, 2010.
- [39] J. Dong, X. Li. Rainbow connection number and independence number of a graph. *Graphs Combin.*, 32:1829–1841, 2016. <https://doi.org/10.1007/s00373-016-1704-0>
- [40] J. Dong, X. Li. Upper bounds involving parameter  $\sigma_2$  for the rainbow connection. *Acta Math. Appl. Sin.*, 29(4):685–688, 2013.
- [41] J. Dong, X. Li. Rainbow connection number, bridges and radius. *Graphs Combin.*, 29:1733–1739, 2013. <https://doi.org/10.1007/s00373-012-1218-3>
- [42] J. Dong, X. Li. Rainbow connection numbers and the minimum degree sum of a graph. *Sci. China: Math. (in Chinese)*, 43(1):1–7, 2013.
- [43] J. Dong, X. Li. Sharp upper bound for the rainbow connection number of a graph with diameter 2. *arXiv:1106.1258v3 [math.CO]*.
- [44] P. Dorbec, I. Schiermeyer, E. Sidorowicz, and E. Sopena. Rainbow connection in oriented graphs. *Discrete Appl. Math.*, 179:69–78, 2014.  
<https://doi.org/10.1016/j.dam.2014.07.018>
- [45] G. Dror, A. Lev, Y. Roditty, and R. Zigdun. On the rainbow connection number of graphs. *Ars Combin.*, 133:51–67, 2017.

- [46] A. Dudek, A. Frieze, and C.E. Tsourakakis. Rainbow connection of random regular graphs. *SIAM J. Discrete. Math.* 29(4):2255–2266, 2015. <https://doi.org/10.1137/140998433>
- [47] J. Ekstein, P. Holub, T. Kaiser, M. Kochy, S.M. Camachoy, Z. Ryjáček, and I. Schiermeyer. The rainbow connection number of 2-connected graphs. *Discrete Math.* 313(19):1884–1892, 2013. <https://doi.org/10.1016/j.disc.2012.04.022>
- [48] E. Eiben, R. Ganian, and J. Lauri. On the complexity of rainbow coloring problems. *Proceedings of the 26th International Workshop on Combinatorial Algorithms, IWOCA 2015*, Verona, Italy, October 5-7, 209–220, 2015.
- [49] E.S. Elmallah, C.J. Colbourn. Series-parallel subgraphs of planar graphs. *Networks*, 22(6):607–614, 1992. <https://doi.org/10.1002/net.3230220608>
- [50] A. Frieze, C.E. Tsourakakis. Rainbow connectivity of sparse random graphs. *Electron. J. Combin.*, 19, 2012. [https://doi.org/10.1007/978-3-642-32512-0\\_46](https://doi.org/10.1007/978-3-642-32512-0_46)
- [51] S. Fujita, H. Liu, and C. Magnant. Rainbow  $k$ -connection in dense graphs. *Electron. Notes Discrete Math.*, 38:361–366, 2011, or, *J. Combin. Math. Combin. Comput.*, 93:33– 52, 2015.
- [52] T. Goligranica, G. Mekiš, and I. Peterin. Rainbow connection and graph products. *IMFM Preprint Series*, 49, #1149, 2011.
- [53] S. Klavžar, G. Mekiš. On the rainbow connection of Cartesian products and their subgraphs. *Discuss. Math. Graph Theory*, 32(4):783–793, 2012. <https://doi.org/10.7151/dmgt.1644>
- [54] M. Hager. Pendant tree-connectivity. *J. Combin. Theory Ser. B* 38:179–189, 1985. [https://doi.org/10.1016/0095-8956\(85\)90083-8](https://doi.org/10.1016/0095-8956(85)90083-8)
- [55] R. Hammack, W. Imrich, and S. Klavžar. Handbook of Product Graphs. Second Edition, CRC Press, 2011.
- [56] F. Harary, R.W Robinson. The diameter of a graph and its complement. *Amer. Math. Monthly* 92:211–212, 1985. <https://doi.org/10.1080/00029890.1985.11971579>
- [57] F. Harary, T.W. Haynes. Nordhaus-Gaddum inequalities for domination in graphs. *Discrete Math.* 155:99–10, 1996. [https://doi.org/10.1016/0012-365X\(94\)00373-Q](https://doi.org/10.1016/0012-365X(94)00373-Q)
- [58] J. He, H. Liang. On rainbow- $k$ -connectivity of random graphs. *Inf. Process. Lett.*, 112(10):406–410, 2012. <https://doi.org/10.1016/j.ipl.2012.01.014>
- [59] A. Heckel, O. Riordan. The hitting time of rainbow connection number two. *Electron. J. Combin.*, 19(4), 2012, P37.
- [60] A. Heckel, O. Riordan. On the threshold for rainbow connection number  $r$  in random graphs. *Graphs Combin.*, 32(1):161–174, 2016. <https://doi.org/10.1007/s00373-015-1534-5>
- [61] S.T. Hedetniemi, P.J. Slater. Line graphs of triangleless graphs and iterated clique graphs. In *Graph Theory and Applications*, Lecture Notes in Mathematics 303 (ed. Y. Alavi *et al.*), Springer-Verlag, Berlin, Heidelberg, New York, 139–147, 1972. <https://doi.org/10.1007/BFb0067365>

- [62] R. Hemminger, L. Beineke. Line graphs and line digraphs. In *Selected Topics in Graph Theory* (ed. L. Beineke *et al.*), Academic Press, London, New York, San Francisco, 271–305, 1978.
- [63] X. Huang, X. Li, and Y. Shi. Note on the hardness of rainbow connections for planar and line graphs. *Bull. Malays. Math. Sci. Soc.*, 38(3):1235–1241, 2015. <https://doi.org/10.1007/s40840-014-0077-x>
- [64] R. Holliday, C. Magnant, and P.S. Nowbandegani. Note on rainbow connection in oriented graphs with diameter 2. *Theory Appl. Graphs*, 1(1), 2014, Article 2.
- [65] P. Holub, Z. Ryjáček, and I. Schiermeyer. On forbidden subgraphs and rainbow connection in graphs with minimum degree 2. *Discrete Math.*, 338/3:1–8, 2015. <https://doi.org/10.1016/j.disc.2014.10.006>
- [66] P. Holub, Z. Ryjáček, I. Schiermeyer, and P. Vrána. Rainbow connection and forbidden subgraphs. *Discrete Math.*, 338(10):1706–1713, 2015. <https://doi.org/10.1016/j.disc.2014.08.008>
- [67] P. Holub, Z. Ryjáček, I. Schiermeyer, and P. Vrána. Characterizing forbidden pairs for rainbow connection in graphs with minimum degree 2. *Discrete Math.*, 339:1058–1068, 2016. <https://doi.org/10.1016/j.disc.2015.10.020>
- [68] W. Imrich, S. Klavžar. *Product Graphs—Structure and Recognition*. Wiley, New York, 2000.
- [69] W. Imrich, S. Klavžar, and D.F. Rall. *Topics in Graph Theory: Graphs and Their Cartesian Product*. A. K. Peters, 2008.
- [70] H. Jiang, X. Li, and Y. Zhang. Upper bounds for the total rainbow connection of graphs. *J. Comb. Optim.*, 32:260–266, 2016. <https://doi.org/10.1007/s10878-015-9874-x>
- [71] G.L. Johns, F. Okamoto, and P. Zhang. The rainbow connectivities of small cubic graphs. *Ars Combin.*, 105:129–147, 2012.
- [72] N. Kamčev, M. Krivelevich, and B. Sudakov. Some remarks on rainbow connectivity. *J. Graph Theory*, 83:372–383, 2016. <https://doi.org/10.1002/jgt.22003>
- [73] H. Kaplan, R. Shamir. Pathwidth, bandwidth, and completion problems to proper interval graphs with small cliques. *SIAM J. Comput.*, 25:540–561, 1996. <https://doi.org/10.1137/S0097539793258143>
- [74] G.Y. Katona, H.A. Kierstead. Hamiltonian chains in hypergraphs. *J. Graph Theory*, 30:205–212, 1999. [https://doi.org/10.1002/\(SICI\)1097-0118\(199903\)30:3%3C205::AID-JGT5%3E3.0.CO;2-O](https://doi.org/10.1002/(SICI)1097-0118(199903)30:3%3C205::AID-JGT5%3E3.0.CO;2-O)
- [75] A.V. Kelarev, S.J. Quinn. A combinatorial property and power graphs of groups. *Contrib. General Algebra*, 12:229–235, 2000.
- [76] A. Kemnitz, I. Schiermeyer. Graphs with rainbow connection number two. *Discuss. Math. Graph Theory*, 31:313–320, 2011. <https://doi.org/10.7151/dmgt.1547>



- [77] A. Kemnitz, J. Przybylo, I. Schiermeyer, and M. Wozniak. Rainbow connection in sparse graphs. *Discuss. Math. Graph Theory*, 33(1):181–192, 2013.  
<https://doi.org/10.7151/dmgt.1640>
- [78] M. Keranen, J. Lauri. Computing minimum rainbow and strong rainbow colorings of block graphs. *arXiv: 1405.6893v5[cs.DM]*.
- [79] M. Krivelevich, R. Yuster. The rainbow connection of a graph is (at most) reciprocal to its minimum degree three. *J. Graph Theory*, 63:185–191, 2010.
- [80] J. Lauri. Further hardness results on rainbow and strong rainbow connectivity. *Discrete. Appl. Math.*, 201:191–200, 2016. <https://doi.org/10.1016/j.dam.2015.07.041>
- [81] H. Lei, S. Li, H. Liu, and Y. Shi. Rainbow vertex connection of digraphs. Accepted by *J. Comb. Optim.*
- [82] H. Lei, H. Liu, C. Magnant, and Y. Shi. Total rainbow connection of digraphs. *ArXiv: 1701.04283v1 [math.CO]*.
- [83] H. Li, X. Li, and S. Liu. The (strong) rainbow connection numbers of Cayley graphs on Abelian groups. *Comput. & Math. Appl.* 62(11):4082–4088, 2011.  
<https://doi.org/10.1016/j.camwa.2011.09.056>
- [84] H. Li, X. Li, and S. Liu. Rainbow connection in graphs with diameter 2. *Discrete Math.*, 312(8):1453–1457, 2012. <https://doi.org/10.1016/j.disc.2012.01.009>
- [85] H. Li, X. Li, and Y. Sun. Rainbow connection number of graphs with diameter 3. *Discuss. Math. Graph Theory* 37(1):141–154, 2017. <https://doi.org/10.7151/dmgt.1920>
- [86] H. Li, X. Li, Y. Sun, and Y. Zhao. Note on minimally  $d$ -rainbow connected graphs. *Graphs Combin.*, 30(4):949–955, 2014. <https://doi.org/10.1007/s00373-013-1309-9>
- [87] S. Li, X. Li, and Y. Shi. Note on the complexity of deciding the rainbow (vertex-)connectedness for bipartite graphs. *Appl. Math. Comput.*, 258:155–161, 2015.
- [88] W. Li, X. Li, C. Magnant, and J. Zhang. Tight Nordhaus-Gaddum-type upper bound for total-rainbow connection number of graphs. *ArXiv: 1703.04065v3 [math.CO]*.
- [89] W. Li, X. Li, and D. Wu. Hardness result for the total rainbow  $k$ -connection of graphs. *Appl. Math. Comput.*, 305:27–31, 2017. <https://doi.org/10.1016/j.amc.2017.01.068>
- [90] W. Li, X. Li, and J. Zhang. Rainbow vertex-connection and forbidden subgraphs. *Discuss. Math. Graph Theory*, in press. <https://doi.org/10.7151/dmgt.2004>
- [91] W. Li, X. Li, and J. Zhang. 3-Rainbow index and forbidden subgraphs. *Graphs Combin.*, 33:999–1008, 2017. <https://doi.org/10.1007/s00373-017-1783-6>
- [92] X. Li, M. Liu, and I. Schiermeyer. Rainbow connection number of dense graphs. *Discuss. Math. Graph Theory*, 33(3):603–612, 2013. <https://doi.org/10.7151/dmgt.1692>
- [93] X. Li, S. Liu. A sharp upper bound for the rainbow 2-connection number of a 2-connected graph. *Discrete Math.*, 313(6):755–759, 2013.  
<https://doi.org/10.1016/j.disc.2012.12.014>

- [94] X. Li, S. Liu. Rainbow connection number and the number of blocks. *Graphs Combin.*, 31:141–147, 2015. <https://doi.org/10.1007/s00373-013-1369-x>
- [95] X. Li, S. Liu. Sharp upper bound for the rainbow connection numbers of 2-connected graphs. *ArXiv: 1105.4210v2 [math.CO]*.
- [96] X. Li, S. Liu. Tight upper bound of the rainbow vertex-connection number for 2-connected graphs. *Discrete Appl. Math.*, 173:62–69, 2014. <https://doi.org/10.1016/j.dam.2014.04.002>
- [97] X. Li, S. Liu, L.S. Chandran, R. Mathew, and D. Rajendraprasad. Rainbow connection number and connectivity. *Electron. J. Combin.*, 19, 2012, P20.
- [98] X. Li, Y. Mao. Generalized Connectivity of Graphs. SpringerBriefs in Math., Springer, Switzerland, 2016. <https://doi.org/10.1007/978-3-319-33828-6>
- [99] X. Li, Y. Mao. A survey on the generalized connectivity of graphs. *ArXiv: 1207.1838 [math.CO]*.
- [100] X. Li, Y. Mao, and Y. Shi. The strong rainbow vertex-connection of graphs. *Util. Math.*, 93:213–223, 2014.
- [101] X. Li, Y. Mao, and Y. Sun. On the generalized (edge-)connectivity of graphs. *Australas. J. Combin.*, 58:304–319, 2014.
- [102] X. Li, I. Schiermeyer, K. Yang, and Y. Zhao. Graphs with 3-rainbow index  $n - 1$  and  $n - 2$ . *Discuss. Math. Graph Theory*, 35(1):105–120, 2015. <https://doi.org/10.7151/dmgt.1783>
- [103] X. Li, I. Schiermeyer, K. Yang, and Y. Zhao. Graphs with 4-rainbow index 3 and  $n - 1$ . *Discuss. Math. Graph Theory*, 35:387–398, 2015. <https://doi.org/10.7151/dmgt.1783> <https://doi.org/10.7151/dmgt.1794>
- [104] X. Li, Y. Shi, and Y. Sun. Rainbow connections of graphs: a survey. *Graphs Combin.*, 29(1):1–38, 2013. <https://doi.org/10.1007/s00373-012-1243-2>
- [105] X. Li, Y. Sun. On the rainbow  $k$ -connectivity of complete graphs. *Australas. J. Combin.*, 49:217–226, 2011.
- [106] X. Li, Y. Sun. Note on the rainbow  $k$ -connectivity of regular complete bipartite graphs. *Ars Combin.*, 101:513–518, 2011.
- [107] X. Li, Y. Sun. Rainbow connection numbers of line graphs. *Ars Combin.*, 100:449–463, 2011.
- [108] X. Li, Y. Sun. Upper bounds for the rainbow connection numbers of line graphs. *Graphs Combin.*, 28:251–263, 2012. <https://doi.org/10.1007/s00373-011-1034-1>
- [109] X. Li, Y. Sun. Characterize graphs with rainbow connection number  $m - 2$  and rainbow connection numbers of some graph operations. Preprint (2010).
- [110] X. Li, Y. Sun. On the strong rainbow connection number. *Bull. Malays. Math. Sci. Soc.*, 36(2):299–311, 2013.

- [111] X. Li, Y. Sun. Rainbow connection numbers of complementary graphs. *Util. Math.*, 86:23–31, 2011.
- [112] X. Li, Y. Sun. Rainbow Connections of Graphs. Springer Briefs in Math., Springer, New York, 2012. <https://doi.org/10.1007/978-1-4614-3119-0>
- [113] X. Li, Y. Sun, and Y. Zhao. Characterization of graphs with rainbow connection number  $m - 2$  and  $m - 3$ . *Australas. J. Combin.*, 60(3):306–313, 2014.
- [114] H. Liu, Â. Mestre, and T. Sousa. Rainbow vertex  $k$ -connection in graph. *Discrete. Appl. Math.*, 161:2549–2555, 2013. <https://doi.org/10.1016/j.dam.2013.04.025>
- [115] H. Liu, Â. Mestre, and T. Sousa. Total rainbow  $k$ -connection in graphs. *Discrete Appl. Math.*, 174:92–101, 2014. <https://doi.org/10.1016/j.dam.2014.04.012>
- [116] M. Liu. Rainbow vertex connection number of dense and sparse graphs. *Ars. Comb.* 125:393–399, 2016.
- [117] T. Liu, Y. Hu. The 3-rainbow index of graph operations. *WSEAS Trans. Math.*, 13:161–170, 2014.
- [118] T. Liu, Y. Hu. Some upper bounds for 3-rainbow index of graphs. *J. Comb. Math. Comb. Comput.*, 97:217–225, 2016.
- [119] T. Liu, Y. Hu. A note on the 3-rainbow index of  $K_{2,t}$ . *ArXiv: 1310.2353 [math.CO]*.
- [120] Thomas Y.H. Liu. The minimum size of graphs with given rainbow index. *ArXiv: 1509.07256v2 [math.CO]*.
- [121] Z. Lu, Y. Ma. Rainbow 2-connection numbers of Cayley graphs. *Inform. Process. Lett.*, 115:486–491, 2015. <https://doi.org/10.1016/j.ipl.2014.12.007>
- [122] Z. Lu, Y. Ma. Graphs with vertex rainbow connection number two. *Sci. China: Math.* 58(8):1803–1810, 2015. <https://doi.org/10.1007/s11425-014-4905-0>
- [123] Z. Lu, Y. Ma. The rainbow vertex connectivities of small cubic graphs. Accepted by *Ars Combin.*
- [124] X. Ma, M. Feng, and K. Wang. The rainbow connection number of the power graph of a finite group. *Graph Combin.*, 32:1495–1504, 2016. <https://doi.org/10.1007/s00373-015-1665-8>
- [125] Y. Ma. Total rainbow connection number and complementary graph. *Results Math.*, 70:173–182, 2016.
- [126] Y. Mao. The vertex-rainbow index of a graph. *Discuss. Math. Graph Theory*, 36(3):669–681, 2016. <https://doi.org/10.7151/dmgt.1887>
- [127] Y. Mao, F. Yanling, Z. Wang, and C. Ye. Rainbow vertex-connection and graph products. *Int. J. Comput. Math.*, 93(7):1078–1092, 2016.



<https://doi.org/10.1080/00207160.2015.1047356>

- [128] Y. Mao, Y. Shi. The complexity of determining the vertex-rainbow index of graphs. *Discrete Math. Algorithms Appl.*, 7(4), 2015, 1550047. <https://doi.org/10.1142/S1793830915500470>
- [129] J. Nešetřil, P. Ossona de Mendez. Grad and classes with bounded expansion I. Decompositions. *European J. Comb.*, 29:760–776, 2008. <https://doi.org/10.1016/j.ejc.2006.07.013>
- [130] E.A. Nordhaus, J.W. Gaddum. On complementary graphs. *Amer. Math. Monthly* 63:175–177, 1956. <https://doi.org/10.2307/2306658>
- [131] E. Prisner. Graph Dynamics. Pitman Research Notes in Mathematics Series, Vol. 338, Longman, Harlow, 1995.
- [132] N. Robertson, P. Seymour. Graph minors. II. Algorithmic aspects of tree-width. *J. Algorithms*, 7(3):309–322, 1986. [https://doi.org/10.1016/0196-6774\(86\)90023-4](https://doi.org/10.1016/0196-6774(86)90023-4)
- [133] I. Schiermeyer. Rainbow connection in graphs with minimum degree three. IWOCA 2009, *LNCS*, 5874:432–437, 2009.
- [134] I. Schiermeyer. Bound for the rainbow connection number of graphs. *Discuss. Math. Graph Theory*, 31(2):387–395, 2011. <https://doi.org/10.7151/dmgt.1553>
- [135] I. Schiermeyer. On minimally rainbow  $k$ -connected graphs. *Discrete Appl. Math.*, 161:702–705, 2013. <https://doi.org/10.1016/j.dam.2011.05.001>  
<https://doi.org/10.1016/j.dam.2011.10.009>
- [136] Y. Sun. On two variants of rainbow connection. *WSEAS Trans. Math.* 12(3):266–276, 2013.
- [137] Y. Sun. Rainbow connection numbers of line graphs, middle graphs and total graphs. *Int. J. Appl. Math. Stat.*, 42(12):361–369, 2013.
- [138] Y. Sun. Rainbow connection numbers for undirected double-loop networks. David Gao et al. (eds.) *Advances in Global Optimization*, Springer Proceedings in Mathematics & Statistics 95, 109–116, 2015. [https://doi.org/10.1007/978-3-319-08377-3\\_12](https://doi.org/10.1007/978-3-319-08377-3_12)
- [139] Y. Sun. Generalized 3-edge-connectivity of Cartesian product graphs. *Czechoslovak Math. J.*, 65(1):107–117, 2015. <https://doi.org/10.1007/s10587-015-0162-9>
- [140] Y. Sun. On rainbow total-coloring of a graph. *Discrete Appl. Math.*, 194:171–177, 2015. <https://doi.org/10.1016/j.dam.2015.05.012>
- [141] Y. Sun. On the total rainbow connection of a graph. Accepted by *Acta Math. Appl. Sin. Engl. Ser.*
- [142] Y. Sun. The  $(3, \ell)$ -rainbow edge-index of Cartesian product graphs. Accepted by *J. Interconnection Networks*.
- [143] Y. Sun, Z. Jin, and F. Li. On total rainbow  $k$ -connected graphs. *Appl. Math. Comput.*, 311:223–227, 2017. <https://doi.org/10.1016/j.amc.2017.05.020>

- [144] Y. Sun, Z. Jin, and J. Tu. Rainbow total-coloring of complementary graphs and Erdős-Gallai type problem for the rainbow total-connection number. Accepted by *Discuss. Math. Graph Theory*.
- [145] K. Uchizawa, T. Aoki, T. Ito, A. Suzuki, and X. Zhou. On the Rainbow Connectivity of Graphs: Complexity and FPT Algorithms. *LNCS*, 6842:86–97, 2011. Also see *Algorithmica*, 67:161–179, 2013. <https://doi.org/10.1007/s00453-012-9689-4>
- [146] Y. Wei, X. Ma, and K. Wang. Rainbow connectivity of the non-commuting graph of a finite group. *J. Algebra Appl.*, 15(7), 2016, 1650127-1. <https://doi.org/10.1142/S0219498816501279>
- [147] H. Whitney. Congruent graphs and the connectivity of graphs. *Amer. J. Math.*, 54:150–168, 1932. <https://doi.org/10.2307/2371086>