

# Ryan R. Martin

## Publications

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### Submitted Publications:

- [58] R.R. Martin and A.W.N. Riasanovsky, On the edit distance function of the random graph, submitted. (33pp.) [arXiv]
- [57] M. Axenovich and R.R. Martin, Splits with forbidden subgraphs, submitted. (12pp.) [arXiv]
- [56] D. Ghosh, E. Gyóri, R.R. Martin, A. Paulos, and C. Xiao, Planar Turán number of the 6-cycle, submitted. (27pp.) [arXiv]
- [55] D. Ghosh, E. Gyóri, R.R. Martin, A. Paulos, N. Salia, C. Xiao, and O. Zamora, The maximum number of paths of length four in a planar graph, submitted. (9pp.) [arXiv]
- [54] B. Keszegh, N. Lemons, R.R. Martin, D. Pálvölgyi, and B. Patkós, Induced and non-induced poset saturation problems, submitted. (25pp.) [arXiv]

### Publications to appear:

- [53] A. Blumenthal, B. Lidický, R.R. Martin, S. Norin, F. Pfender, and J. Volec, Counterexamples to a conjecture of Harris on Hall ratio, *SIAM J. Discrete Math.*, to appear. (11pp.) [arXiv]

### Journal Publications:

- [52] R.R. Martin, H.C. Smith, and S. Walker, Improved bounds for induced poset saturation, *Electron. J. Combin.*, **27**(2) (2020), Research Paper P2.31. (9pp.) [arXiv]
- [51] J. Kim, R.R. Martin, T. Masařík, W. Shull, H.C. Smith, A. Uzzell, and Z. Wang, On difference graphs and the local dimension of posets, *European J. Combin.* **86** (2020), Article 103074. DOI:10.1016/j.ejc.2019.103074 [arXiv]
- [50] M. Dairyko, M. Ferrara, B. Lidický, R.R. Martin, F. Pfender, and A. Uzzell, Ore and Chvátal-type degree conditions for bootstrap percolation from small sets, *J. Graph Theory* **94**(2) (2020), 252–266. DOI:10.1002/jgt.22517 [arXiv]
- [49] A. Bernshteyn, O. Khormali, R.R. Martin, J. Rollin, D. Rorabaugh, S. Shan, and A. Uzzell, Regular colorings and factors of regular graphs, *Discuss. Math. Graph Theory*, **40**(3) (2020), 795–806. DOI:10.7151/dmgt.2149 [arXiv]
- [48] R.R. Martin, A. Methuku, A. Uzzell, and S. Walker, A simple proof for a forbidden subposet problem, *Electron. J. Combin.*, **27**(1) (2020), Research Paper P1.31. (9pp.) [arXiv]
- [47] Zh. Berikkyzy, R.R. Martin, and C. Peck, On the edit distance of powers of cycles, *Discrete Math.* **342**(10) (2019), 2804–2817. DOI:10.1016/j.disc.2018.09.018 [arXiv]
- [46] M. Axenovich, J. Goldwasser, R. Hansen, B. Lidický, R.R. Martin, D. Offner, J. Talbot, and M. Young, Polychromatic colorings on the integers, *Integers* **19** (2019), Research Paper A18. (17pp.) [arXiv]
- [45] C. Erbes, M. Ferrara, R.R. Martin, and P. Wenger, On the approximate shape of degree sequences that are not potentially  $H$ -graphic, *J. Comb.* **10**(2) (2019), 339–363. DOI:10.4310/JOC.2019.v10.n2.a9 [arXiv]

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- [44] J. Goldwasser, B. Lidický, R.R. Martin, D. Offner, J. Talbot, and M. Young, Polychromatic colorings on the hypercube, *J. Comb.* **9**(4) (2018), 631–657. DOI:10.4310/JOC.2018.v9.n4.a4 [arXiv]
- [43] C. Erbes, M. Ferrara, R.R. Martin, and P. Wenger, Stability of the potential function, *SIAM J. Discrete Math.* **32**(3) (2018), 2313–2331. DOI:10.1137/16M1109643 [Journal Copy] [arXiv]
- [42] K. Hogenson, R.R. Martin, and Y. Zhao, Tiling tripartite graphs with 3-colorable graphs: The extreme case, *Graphs Combin.* **34**(5) (2018), 1049–1075. DOI:10.1007/s00373-018-1929-1 [Journal Copy] [arXiv]
- [41] M. Axenovich, J. Goldwasser, R. Hansen, B. Lidický, R.R. Martin, D. Offner, J. Talbot, and M. Young, Polychromatic colorings of complete graphs with respect to 1-,2-factors and Hamiltonian cycles, *J. Graph Theory*, **87**(4) (2018), 660–671. DOI:10.1002/jgt.22180 [Journal Copy] [arXiv]
- [40] M. Ferrara, B. Kay, L. Kramer, R.R. Martin, B. Reiniger, H. Smith, and E. Sullivan, The saturation number of induced subposets of the Boolean lattice, *Discrete Math.*, **340**(10) (2017), 2479–2487. DOI:10.1016/j.disc.2017.06.010 [Journal Copy] [arXiv]
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- [37] R.R. Martin and S. Walker, A note on the size of  $N$ -free families, *European J. Math.* **3**(2) (2017), 429–432. DOI:10.1007/s40879-017-0139-3 [Journal Copy] [arXiv]
- [36] J. Balogh, B. Csaba, R.R. Martin, and A. Pluhár, On the path separation number of graphs, *Discrete Appl. Math.* **213** (2016), 26–33. DOI:10.1016/j.dam.2016.05.022 [Journal Copy] [arXiv]
- [35] S. Butler, C. Erickson, L. Hogben, K. Hogenson, L. Kramer, R.L. Kramer, J.C.-H. Lin, R.R. Martin, D. Stolee, N. Warnberg, and M. Young, Rainbow arithmetic progressions, *J. Comb.* **7**(4) (2016), 595–626. DOI:10.4310/JOC.2016.v7.n4.a3 [Journal Copy] [arXiv]
- [34] R.R. Martin, On the computation of edit distance functions, *Discrete Math.* **338**(2) (2015), 291–305. DOI:10.1016/j.disc.2014.09.005 [Journal Copy] [arXiv]
- [33] R.R. Martin and T. McKay, On the edit distance from  $K_{2,t}$ -free graphs, *J. Graph Theory* **77**(2) (2014), 117–143. DOI:10.1002/jgt.21777 [Journal Copy] [arXiv extended version]
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- [28] M. Axenovich, J. Manske, and R.R. Martin,  $Q_2$ -free families in the Boolean lattice, *Order* **29**(1) (2012), 177–191. DOI:10.1007/s11083-012-9263-3 [Journal Copy] [arXiv]
- [27] M. Axenovich and R.R. Martin, Multicolor and directed edit distance, *J. Comb.* **2**(4) (2011), 525–556. DOI:10.4310/JOC.2011.v2.n4.a4 [Journal Copy] [arXiv]
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- [22] J. Balogh, R.R. Martin, and A. Pluhár, The diameter game, *Random Structures Algorithms* **35**(3) (2009), 369–389. DOI:10.1002/rsa.20280 [Journal Copy] [arXiv]
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- [18] M. Axenovich and R.R. Martin, Avoiding rainbow induced subgraphs in vertex-colorings, *Electron. J. Combin.* **15**(1) (2008), Research Paper 12. (23pp.) [Journal Copy] [arXiv]
- [17] R.R. Martin and E. Szemerédi, Quadripartite version of the Hajnal-Szemerédi theorem, *Discrete Math.* **308**(19) (2008), 4337–4360. DOI:10.1016/j.disc.2007.08.019 [Journal Copy]
- [16] M. Axenovich and R.R. Martin, On weighted Ramsey numbers, *Australas. J. Combin.* **38** (2007), 179–194. [Journal Copy] [arXiv]
- [15] A. Frieze, R.R. Martin, J. Moncel, M. Ruszinkó, and C. Smyth, Codes identifying sets of vertices in random networks, *Discrete Math.* **307**(10) (2007), 1094–1107. DOI: 10.1016/j.disc.2006.07.041 [Journal Copy]
- [14] T. Bohman, A. Frieze, R.R. Martin, M. Ruszinkó, and C. Smyth, On randomly generated intersecting hypergraphs II, *Random Structures Algorithms* **30**(1) (2007), 17–34. DOI:10.1002/rsa.20152 [Journal Copy] [arXiv]
- [13] M. Axenovich and R.R. Martin, Sub-Ramsey numbers for arithmetic progressions, *Graphs Combin.* **22**(3) (2006), 297–309. DOI:10.1007/s00373-006-0663-2 [Journal Copy] [arXiv]

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- [11] M. Axenovich and R.R. Martin, On the strong chromatic number of graphs, *SIAM J. Discrete Math.* **20**(3) (2006), 741–747. DOI:10.1137/050633056 [Journal Copy] [arXiv]
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- [2] F. Lazebnik, W. Li, and R.R. Martin, Random walks on rooted trees, *Bull. Inst. Combin. Appl.* **22** (1998), 59–66. [PrePrint]
- [1] J. Benashski, R.R. Martin, J. Moore, and L. Traldi, On the  $\beta$ -invariant for graphs, Proceedings of the Twenty-sixth Southeastern International Conference on Combinatorics, Graph Theory and Computing (Boca Raton, FL, 1995). *Congr. Numer.* **109** (1995), 211–221. [PrePrint]

### Book Chapter:

- R.R. Martin, The edit distance in graphs: methods, results and generalizations, *Recent Trends in Combinatorics*, 31–62, IMA Vol. Math. Appl., **159**, Springer, Cham, 2016. DOI:10.1007/978-3-319-24298-9\_2 [Chapter Copy] [PrePrint] [ERRATA]

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### Extended Abstracts:

- R.R. Martin (based on joint work with J. Balogh and A. Pluhár), The diameter game (extended abstract), in *Oberwolfach Reports* 4(2) (2007) 1073–1114. [PrePrint]
- A. Frieze, R.R. Martin, J. Moncel, M. Ruszinkó, and C. Smyth, Identifying codes in random networks (extended abstract), *Proceedings of the 2005 IEEE International Symposium on Information Theory (Adelaide, Australia, 2005)* (2005), 1461–1467. [PrePrint]
- R.R. Martin (based on joint work with Cs. Magyar), Tripartite version of the Corrádi-Hajnal Theorem (extended abstract), *Paul Erdős and his mathematics (Budapest, 1999)*, 166–168, *János Bolyai Math. Soc., Budapest*, 1999.

### arXiv Manuscript:

- M. Axenovich and R.R. Martin, A version of Szemerédi’s regularity lemma for multicolored graphs and directed graphs that is suitable for induced graphs, 2011. [arXiv]

### Dissertations:

- On graph packing, induced subgraphs and intersecting hypergraphs, Ph. D. dissertation, Rutgers University, October 2000. (159pp.) [Thesis]
- Minimum expected time of random walks on rooted trees, Senior thesis, University of Delaware, May 1995. (63pp.)