List of Publications

Refereed papers in professional journals

Journals

1. Bar-Yehuda, R. and S. Even. A linear time approximation algorithm for the weighted vertex cover problem. *Journal of Algorithms*, 2:198–203, 1981.

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8. Bar-Yehuda, R., O. Goldreich, and A. Itai. On the time-complexity of broadcast in multi-hop radio networks: An exponential gap between determinism and randomization. *Journal of Computer and System Sciences*, 45:104–126, 1992.

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15. Bar-Yehuda, R. and E. Ben-Hanoch. A linear time algorithm for covering simple polygons with similar rectangles. *Int. J. of Computational Geometry & Appl.*, 6(1):79–102, 1996.

16. Bar-Yehuda, R. C. Gotsman. Time/space tradeoffs for polygon mesh rendering. *ACM Trans. on Graphics*, 15(2):141–152, 1996.

17. Cohen, S., G. Elber, and R. Bar-Yehuda. Matching of freeform curves. *Computer Aided Design*, 29(5):369–378, 1997.

18. Bar-Yehuda, R., D. Geiger, J. Naor, and R. Roth. Approximation Algorithms for the Feedback Vertex Set Problem with Applications to Constraint Satisfaction and Bayesian Inference, *SIAM Journal on Computing*, 27(4):942–959, 1998.

19. Bar-Yehuda, R. and S. Fogel. Partitioning a sequence into few monotone subsequences. *Acta Informatica*, 35:421-440, 1998.

20. Becker, A., R. Bar-Yehuda, and D. Geiger. Randomized Algorithms for the Loop Cutset Problem, *Journal Artificial Intelligence Research* 12:219–234, 2000.

21. Bar-Yehuda, R., One for the Price of Two: A Unified Approach for Approximating Covering Problems, *Algorithmica* 27(2), 2000:131–144, 2000.

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28. Bar-Yehuda, R. and Z. Kehat, Approximating the Dense Set-Cover Problem *Journal of Computer and System Sciences* 69(4):547-561, 2004.

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31. Bar-Yehuda, R., D. Rawitz, On the Equivalence Between the Primal-Dual Schema and the Local-Ratio Technique, *SIAM Journal on Discrete Mathematics* 19(3):762-797, 2005.

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35. R. Bar-Yehuda and J. Laserson, Exploiting Locality: Approximating Sorting Buffers, *Journal of Discrete Algorithms*, Vol. 5, Issue 4, 729-738, 2007.

36. R. Bar-Yehuda I. Feldman and D. Rawitz, Improved Approximation Algorithm for Convex Recoloring of Trees. *Theory of Computing Systems* 43, 3-18, 2008.

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37. R. Bar-Yehuda, M. Beder, Y. Cohen, and D. Rawitz. Approximation algorithms for resource allocation in bounded degree trees. *Algorithmica*,

38. R. Zohar and R. Bar Yehuda The Maximum Weight Hierarchy Matching Problem, Accepted to *Journal of information Fusion*

Book Chapters

1. Reuven Bar-Yehuda, Keren Bendel, Ari Freund, and Dror Rawitz. The local ratio technique and its application to scheduling and resource allocation problems. In Graph Theory, Combinatorics, and Algorithms: Interdisciplinary Applications. Martin C. Golumbic, Irith Ben-Arroyo Hartman (Eds.), *Operations Research & Computer Science Series* 33, 2005.

2. Reuven Bar-Yehuda and Dror Rawitz. A tale of two methods. In Theoretical Computer Science: Essays in Memory of Shimon Even. Oded Goldreich, Arnold L. Rosenberg, and Alan L. Selman (Eds.), LNCS 3895:196-217, Springer-Verlag, 2006.

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7. Bar-Yehuda, R., B. Chor, and E. Kushilevitz, Privacy, Additional Information, and Communication, 5th IEEE Structure in Complexity Theory, July 1990, pp. 55-65. (Contained in (13))

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9. Bar-Yehuda, R., and E. Ben-Hanoch, An $O(N \log^* N)$ Time Algorithm for Covering Simple Polygons With Squares, Second Canadian Conference on Computational Geometry, Ottawa, Ontario, Canada, August 6-10, 1990. (Contained in (15))

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13. Bar-Yehuda, R., D. Geiger, J. Naor and R. Roth, Approximation algorithms for the vertex feedback set problem with applications to constraint satisfaction and bayesian inference, Proceedings of the 5th Annual ACM-Siam Symposium on Discrete Algorithms, Arlington, Virginia, (1994). (Contained in (18))

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16. Bar-Yehuda R., Using Homogeneous Weights for Approximating the Partial Cover Problem, Tenth Annual ACM-SIAM Symposium on Discrete Algorithms, January 17-19, 1999. (Contained in (23))

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25. R. Bar-Yehuda and J. Laserson, Exploiting Locality: Approximating Sorting Buffers, Proceedings of the 3rd International Workshop on Approximation and Online Algorithms (WAOA), 2005. Lecture Notes in Computer Science Springer. Mallorca, Spain, October 3-6, 2005 (Contained in Submitted (35))

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