

PUBLICATIONS

Professor Gregory Z. Gutin

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Monographs

1. J. Bang-Jensen and G. Gutin, *Digraphs: Theory, Algorithms and Applications*, Springer-Verlag, London, 2000, 754 pp. (translated into Chinese and published by Science Press in 2009).
2. J. Bang-Jensen and G. Gutin, *Digraphs: Theory, Algorithms and Applications*, 2nd Ed., Springer-Verlag, London, 2009.

Chapters and sections in books

1. G. Gutin, Domination Analysis in Combinatorial Optimization. *Encyclopedia of Optimization*, 2nd Ed., Springer, New York, 2009, pp. 792–802.
2. G. Gutin, Traveling Salesman Problem. *Encyclopedia of Optimization*, 2nd Ed., Springer, New York, 2009, pp. 3935–3944.
3. G. Gutin and D. Karapetyan, Greedy Like Algorithms for the Traveling Salesman and Multidimensional Assignment Problems. Chapter 16 in *Greedy Algorithms* (W. Bednorz, ed.), IN-TECH, 2008.
4. D. Ghosh, B. Goldengorin, G. Gutin and G. Jäger, Tolerance-based greedy algorithms for the traveling salesman problem. Chapter 5 in: *Mathematical Programming and Game Theory for Decision Making* (S.K. Neogy, R.B. Bapat, A.K. Das and T. Parthasarathy, eds.), World Scientific, N.J., 2008, pp. 47–59.
5. G. Gutin and A. Yeo, Domination Analysis of Combinatorial Optimization Algorithms and Problems. *Graph Theory, Combinatorics and Algorithms: Interdisciplinary Applications* (M.C. Golumbic and I.B.-A. Hartman, eds.), Springer-Verlag, 2005.
6. G. Gutin, Independence and Cliques. *Handbook of Graph Theory* (J. Gross and J. Yellen, eds.), CRC Press, 2003.
7. G. Gutin, Traveling Salesman Problems. *Handbook of Graph Theory* (J. Gross and J. Yellen, eds.), CRC Press, 2003.
8. G. Gutin, A. Yeo and A. Zverovitch, Exponential Neighborhoods and Domination Analysis for the TSP. In *The Traveling Salesman Problem and its Variations* (G. Gutin and A. Punnen, eds.), Kluwer, Dordrecht, 2002, pp. 223–256.

9. D.S. Johnson, G. Gutin, L. McGeoch, A. Yeo, X. Zhang, and A. Zverovitch, Experimental Analysis of Heuristics for ATSP. In *The Traveling Salesman Problem and its Variations* (G. Gutin and A. Punnen, eds.), Kluwer, Dordrecht, 2002, pp. 445–487.

Papers published or accepted for publication in refereed journals

1. R. Crowston, G. Gutin, M. Jones, and A. Yeo, A New Lower Bound on the Maximum Number of Satisfied Clauses in Max-SAT and its Algorithmic Application. *Algorithmica*, to appear.
2. G. Gutin, E.J. Kim, A. Soleimanfallah, S. Szeider, and A. Yeo, Parameterized Complexity Results for General Factors in Bipartite Graphs with an Application to Constraint Programming. *Algorithmica*, to appear.
3. G. Gutin, M. Jones and A. Yeo, Kernels for Below-Upper-Bound Parameterizations of the Hitting Set and Directed Dominating Set Problems. *Theoretical Comput. Sci.*, to appear.
4. G. Gutin, L. van Iersel, M. Mnich, and A. Yeo, All Ternary Permutation Constraint Satisfaction Problems Parameterized Above Average Have Kernels with Quadratic Number of Vertices. *J. Comput. Syst. Sci.*, in press, doi:10.1016/j.jcss.2011.01.004.
5. D. Karapetyan and G. Gutin, A New Approach to Population Sizing for Memetic Algorithms: A Case Study for the Multidimensional Assignment Problem. *Evol. Comput.*, to appear.
6. N. Alon, G. Gutin, E.J. Kim, S. Szeider, and A. Yeo, Solving MAX- k -SAT Above a Tight Lower Bound. *Algorithmica*, in press, doi:10.1007/s00453-010-9428-7.
7. G. Gutin, T. Mansour and S. Severini, A characterization of horizontal visibility graphs and combinatorics on words. *Physica A: Statistical Mechanics and its Applications* 390(12): 2421–2428, 2011.
8. D. Karapetyan and G. Gutin, Local Search Heuristics for the Multidimensional Assignment Problem. *J. Heuristics* 17 (2011), 201–249.
9. G. Gutin, E.J. Kim, M. Lampis, and V. Mitsou, Vertex Cover Problem Parameterized Above and Below Tight Bounds. *Theory of Computing Systems* 48 (2011), 402–410.
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11. D. Karapetyan and G. Gutin, Lin-Kernighan Heuristic Adaptations for the Generalized Traveling Salesman Problem. *Europ. J. Oper. Res.* 208 (2011), 221–232.
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1. G. Gutin, A. Johnstone, J. Reddington, E. Scott, and A. Yeo, An algorithm for finding input-output constrained convex sets in an acyclic digraph. Submitted.
2. G. Gutin, M. Jones and A. Yeo, A New Bound for 3-Satisfiable MaxSat and its Algorithmic Application. Submitted.
3. R. Crowston, M. Fellows, G. Gutin, M. Jones, F. Rosamond, S. Thomassé and A. Yeo, Simultaneously Satisfying Linear Equations Over \mathbb{F}_2 : MaxLin2 and Max- r -Lin2 Parameterized Above Average. Submitted.
4. G. Gutin and A. Yeo, Hypercontractive Inequality for Pseudo-Boolean Functions of Bounded Fourier Width. Submitted.