Bibliography

[1] Milton Abramowitz and Irene A. Stegun, editors. *Handbook of Mathematical Functions*. Dover, 1965.

[2] G. M. Adel'son-Vel'skiĭ and E. M. Landis. An algorithm for the organization of information. *Soviet Mathematics Doklady*, 3(5):1259–1263, 1962.

[3] Alok Aggarwal and Jeffrey Scott Vitter. The input/output complexity of sorting and related problems. *Communications of the ACM*, 31(9):1116–1127, 1988.

[4] Manindra Agrawal, Neeraj Kayal, and Nitin Saxena. PRIMES is in P. *Annals of Mathematics*, 160(2):781–793, 2004.

[5] Alfred V. Aho, John E. Hopcroft, and Jeffrey D. Ullman. *The Design and Analysis of Computer Algorithms*. Addison-Wesley, 1974.

[6] Alfred V. Aho, John E. Hopcroft, and Jeffrey D. Ullman. *Data Structures and Algorithms*. Addison-Wesley, 1983.

[7] Ravindra K. Ahuja, Thomas L. Magnanti, and James B. Orlin. *Network Flows: Theory, Algorithms, and Applications*. Prentice Hall, 1993.

[8] Ravindra K. Ahuja, Kurt Mehlhorn, James B. Orlin, and Robert E. Tarjan. Faster algorithms for the shortest path problem. *Journal of the ACM*, 37(2):213–223, 1990.

[9] Ravindra K. Ahuja and James B. Orlin. A fast and simple algorithm for the maximum flow problem. *Operations Research*, 37(5):748–759, 1989.

[10] Ravindra K. Ahuja, James B. Orlin, and Robert E. Tarjan. Improved time bounds for the maximum flow problem. *SIAM Journal on Computing*, 18(5):939–954, 1989.

[11] Miklós Ajtai, Nimrod Megiddo, and Orli Waarts. Improved algorithms and analysis for secretary problems and generalizations. In *Proceedings of the 36th Annual Symposium on Foundations of Computer Science*, pages 473–482, 1995.

[12] Selim G. Akl. *The Design and Analysis of Parallel Algorithms*. Prentice Hall, 1989.

[13] Mohamad Akra and Louay Bazzi. On the solution of linear recurrence equations. *Computational Optimization and Applications*, 10(2):195–210, 1998.

[14] Noga Alon. Generating pseudo-random permutations and maximum flow algorithms. *Information Processing Letters*, 35:201–204, 1990.

[15] Arne Andersson. Balanced search trees made simple. In *Proceedings of the Third Workshop on Algorithms and Data Structures*, volume 709 of *Lecture Notes in Computer Science*, pages 60–71. Springer, 1993.

[16] Arne Andersson. Faster deterministic sorting and searching in linear space. In *Proceedings of the 37th Annual Symposium on Foundations of Computer Science*, pages 135–141, 1996.

[17] Arne Andersson, Torben Hagerup, Stefan Nilsson, and Rajeev Raman. Sorting in linear time? *Journal of Computer and System Sciences*, 57:74–93, 1998.

[18] Tom M. Apostol. *Calculus*, volume 1. Blaisdell Publishing Company, second edition, 1967.

[19] Nimar S. Arora, Robert D. Blumofe, and C. Greg Plaxton. Thread scheduling for multiprogrammed multiprocessors. In *Proceedings of the 10th Annual ACM Symposium on Parallel Algorithms and Architectures*, pages 119–129, 1998.

[20] Sanjeev Arora. *Probabilistic checking of proofs and the hardness of approximation problems*. PhD thesis, University of California, Berkeley, 1994.

[21] Sanjeev Arora. The approximability of NP-hard problems. In *Proceedings of the 30th Annual ACM Symposium on Theory of Computing*, pages 337–348, 1998.

[22] Sanjeev Arora. Polynomial time approximation schemes for euclidean traveling salesman and other geometric problems. *Journal of the ACM*, 45(5):753–782, 1998.

[23] Sanjeev Arora and Carsten Lund. Hardness of approximations. In Dorit S. Hochbaum, editor, *Approximation Algorithms for NP-Hard Problems*, pages 399–446. PWS Publishing Company, 1997.

[24] Javed A. Aslam. A simple bound on the expected height of a randomly built binary search tree. Technical Report TR2001-387, Dartmouth College Department of Computer Science, 2001.

[25] Mikhail J. Atallah, editor. *Algorithms and Theory of Computation Handbook*. CRC Press, 1999.

[26] G. Ausiello, P. Crescenzi, G. Gambosi, V. Kann, A. Marchetti-Spaccamela, and M. Protasi. *Complexity and Approximation: Combinatorial Optimization Problems and Their Approximability Properties*. Springer, 1999.

[27] Shai Avidan and Ariel Shamir. Seam carving for content-aware image resizing. *ACM Transactions on Graphics*, 26(3), article 10, 2007.

[28] Sara Baase and Allen Van Gelder. *Computer Algorithms: Introduction to Design and Analysis*. Addison-Wesley, third edition, 2000.

[29] Eric Bach. Private communication, 1989.

[30] Eric Bach. Number-theoretic algorithms. In *Annual Review of Computer Science*, volume 4, pages 119–172. Annual Reviews, Inc., 1990.

[31] Eric Bach and Jeffrey Shallit. *Algorithmic Number Theory—Volume I: Efficient Algorithms*. The MIT Press, 1996.

[32] David H. Bailey, King Lee, and Horst D. Simon. Using Strassen's algorithm to accelerate the solution of linear systems. *The Journal of Supercomputing*, 4(4):357–371, 1990.

[33] Surender Baswana, Ramesh Hariharan, and Sandeep Sen. Improved decremental algorithms for maintaining transitive closure and all-pairs shortest paths. *Journal of Algorithms*, 62(2):74–92, 2007.

[34] R. Bayer. Symmetric binary B-trees: Data structure and maintenance algorithms. *Acta Informatica*, 1(4):290–306, 1972.

[35] R. Bayer and E. M. McCreight. Organization and maintenance of large ordered indexes. *Acta Informatica*, 1(3):173–189, 1972.

[36] Pierre Beauchemin, Gilles Brassard, Claude Crépeau, Claude Goutier, and Carl Pomerance. The generation of random numbers that are probably prime. *Journal of Cryptology*, 1(1):53–64, 1988.

[37] Richard Bellman. *Dynamic Programming*. Princeton University Press, 1957.

[38] Richard Bellman. On a routing problem. *Quarterly of Applied Mathematics*, 16(1):87–90, 1958.

[39] Michael Ben-Or. Lower bounds for algebraic computation trees. In *Proceedings of the Fifteenth Annual ACM Symposium on Theory of Computing*, pages 80–86, 1983.

[40] Michael A. Bender, Erik D. Demaine, and Martin Farach-Colton. Cache-oblivious B-trees. In *Proceedings of the 41st Annual Symposium on Foundations of Computer Science*, pages 399–409, 2000.

[41] Samuel W. Bent and John W. John. Finding the median requires $2n$ comparisons. In *Proceedings of the Seventeenth Annual ACM Symposium on Theory of Computing*, pages 213–216, 1985.

[42] Jon L. Bentley. *Writing Efficient Programs*. Prentice Hall, 1982.

[43] Jon L. Bentley. *Programming Pearls*. Addison-Wesley, 1986.

[44] Jon L. Bentley, Dorothea Haken, and James B. Saxe. A general method for solving divide-and-conquer recurrences. *SIGACT News*, 12(3):36–44, 1980.

[45] Daniel Bienstock and Benjamin McClosky. Tightening simplex mixed-integer sets with guaranteed bounds. *Optimization Online*, July 2008.

[46] Patrick Billingsley. *Probability and Measure*. John Wiley & Sons, second edition, 1986.

[47] Guy E. Blelloch. *Scan Primitives and Parallel Vector Models*. PhD thesis, Department of Electrical Engineering and Computer Science, MIT, 1989. Available as MIT Laboratory for Computer Science Technical Report MIT/LCS/TR-463.

[48] Guy E. Blelloch. Programming parallel algorithms. *Communications of the ACM*, 39(3):85–97, 1996.

[49] Guy E. Blelloch, Phillip B. Gibbons, and Yossi Matias. Provably efficient scheduling for languages with fine-grained parallelism. In *Proceedings of the 7th Annual ACM Symposium on Parallel Algorithms and Architectures*, pages 1–12, 1995.

[50] Manuel Blum, Robert W. Floyd, Vaughan Pratt, Ronald L. Rivest, and Robert E. Tarjan. Time bounds for selection. *Journal of Computer and System Sciences*, 7(4):448–461, 1973.

[51] Robert D. Blumofe, Christopher F. Joerg, Bradley C. Kuszmaul, Charles E. Leiserson, Keith H. Randall, and Yuli Zhou. Cilk: An efficient multithreaded runtime system. *Journal of Parallel and Distributed Computing*, 37(1):55–69, 1996.

[52] Robert D. Blumofe and Charles E. Leiserson. Scheduling multithreaded computations by work stealing. *Journal of the ACM*, 46(5):720–748, 1999.

[53] Béla Bollobás. *Random Graphs*. Academic Press, 1985.

[54] Gilles Brassard and Paul Bratley. *Fundamentals of Algorithmics*. Prentice Hall, 1996.

[55] Richard P. Brent. The parallel evaluation of general arithmetic expressions. *Journal of the ACM*, 21(2):201–206, 1974.

[56] Richard P. Brent. An improved Monte Carlo factorization algorithm. *BIT*, 20(2):176–184, 1980.

[57] J. P. Buhler, H. W. Lenstra, Jr., and Carl Pomerance. Factoring integers with the number field sieve. In A. K. Lenstra and H. W. Lenstra, Jr., editors, *The Development of the Number Field Sieve*, volume 1554 of *Lecture Notes in Mathematics*, pages 50–94. Springer, 1993.

[58] J. Lawrence Carter and Mark N. Wegman. Universal classes of hash functions. *Journal of Computer and System Sciences*, 18(2):143–154, 1979.

[59] Barbara Chapman, Gabriele Jost, and Ruud van der Pas. *Using OpenMP: Portable Shared Memory Parallel Programming*. The MIT Press, 2007.

[60] Bernard Chazelle. A minimum spanning tree algorithm with inverse-Ackermann type complexity. *Journal of the ACM*, 47(6):1028–1047, 2000.

[61] Joseph Cheriyan and Torben Hagerup. A randomized maximum-flow algorithm. *SIAM Journal on Computing*, 24(2):203–226, 1995.

[62] Joseph Cheriyan and S. N. Maheshwari. Analysis of preflow push algorithms for maximum network flow. *SIAM Journal on Computing*, 18(6):1057–1086, 1989.

[63] Boris V. Cherkassky and Andrew V. Goldberg. On implementing the push-relabel method for the maximum flow problem. *Algorithmica*, 19(4):390–410, 1997.

[64] Boris V. Cherkassky, Andrew V. Goldberg, and Tomasz Radzik. Shortest paths algorithms: Theory and experimental evaluation. *Mathematical Programming*, 73(2):129–174, 1996.

[65] Boris V. Cherkassky, Andrew V. Goldberg, and Craig Silverstein. Buckets, heaps, lists and monotone priority queues. *SIAM Journal on Computing*, 28(4):1326–1346, 1999.

[66] H. Chernoff. A measure of asymptotic efficiency for tests of a hypothesis based on the sum of observations. *Annals of Mathematical Statistics*, 23(4):493–507, 1952.

[67] Kai Lai Chung. *Elementary Probability Theory with Stochastic Processes*. Springer, 1974.

[68] V. Chvátal. A greedy heuristic for the set-covering problem. *Mathematics of Operations Research*, 4(3):233–235, 1979.

[69] V. Chvátal. *Linear Programming*. W. H. Freeman and Company, 1983.

[70] V. Chvátal, D. A. Klarner, and D. E. Knuth. Selected combinatorial research problems. Technical Report STAN-CS-72-292, Computer Science Department, Stanford University, 1972.

[71] Cilk Arts, Inc., Burlington, Massachusetts. *Cilk++ Programmer's Guide*, 2008. Available at http://www.cilk.com/archive/docs/cilk1guide.

[72] Alan Cobham. The intrinsic computational difficulty of functions. In *Proceedings of the 1964 Congress for Logic, Methodology, and the Philosophy of Science*, pages 24–30. North-Holland, 1964.

[73] H. Cohen and H. W. Lenstra, Jr. Primality testing and Jacobi sums. *Mathematics of Computation*, 42(165):297–330, 1984.

[74] Douglas Comer. The ubiquitous B-tree. *ACM Computing Surveys*, 11(2):121–137, 1979.

[75] Stephen Cook. The complexity of theorem proving procedures. In *Proceedings of the Third Annual ACM Symposium on Theory of Computing*, pages 151–158, 1971.

[76] James W. Cooley and John W. Tukey. An algorithm for the machine calculation of complex Fourier series. *Mathematics of Computation*, 19(90):297–301, 1965.

[77] Don Coppersmith. Modifications to the number field sieve. *Journal of Cryptology*, 6(3):169–180, 1993.

[78] Don Coppersmith and Shmuel Winograd. Matrix multiplication via arithmetic progression. *Journal of Symbolic Computation*, 9(3):251–280, 1990.

[79] Thomas H. Cormen, Thomas Sundquist, and Leonard F. Wisniewski. Asymptotically tight bounds for performing BMMC permutations on parallel disk systems. *SIAM Journal on Computing*, 28(1):105–136, 1998.

[80] Don Dailey and Charles E. Leiserson. Using Cilk to write multiprocessor chess programs. In H. J. van den Herik and B. Monien, editors, *Advances in Computer Games*, volume 9, pages 25–52. University of Maastricht, Netherlands, 2001.

[81] Paolo D'Alberto and Alexandru Nicolau. Adaptive Strassen's matrix multiplication. In *Proceedings of the 21st Annual International Conference on Supercomputing*, pages 284–292, June 2007.

[82] Sanjoy Dasgupta, Christos Papadimitriou, and Umesh Vazirani. *Algorithms*. McGraw-Hill, 2008.

[83] Roman Dementiev, Lutz Kettner, Jens Mehnert, and Peter Sanders. Engineering a sorted list data structure for 32 bit keys. In *Proceedings of the Sixth Workshop on Algorithm Engineering and Experiments and the First Workshop on Analytic Algorithmics and Combinatorics*, pages 142–151, January 2004.

[84] Camil Demetrescu and Giuseppe F. Italiano. Fully dynamic all pairs shortest paths with real edge weights. *Journal of Computer and System Sciences*, 72(5):813–837, 2006.

[85] Eric V. Denardo and Bennett L. Fox. Shortest-route methods: 1. Reaching, pruning, and buckets. *Operations Research*, 27(1):161–186, 1979.

[86] Martin Dietzfelbinger, Anna Karlin, Kurt Mehlhorn, Friedhelm Meyer auf der Heide, Hans Rohnert, and Robert E. Tarjan. Dynamic perfect hashing: Upper and lower bounds. *SIAM Journal on Computing*, 23(4):738–761, 1994.

[87] Whitfield Diffie and Martin E. Hellman. New directions in cryptography. *IEEE Transactions on Information Theory*, IT-22(6):644–654, 1976.

[88] E. W. Dijkstra. A note on two problems in connexion with graphs. *Numerische Mathematik*, 1(1):269–271, 1959.

[89] E. A. Dinic. Algorithm for solution of a problem of maximum flow in a network with power estimation. *Soviet Mathematics Doklady*, 11(5):1277–1280, 1970.

[90] Brandon Dixon, Monika Rauch, and Robert E. Tarjan. Verification and sensitivity analysis of minimum spanning trees in linear time. *SIAM Journal on Computing*, 21(6):1184–1192, 1992.

[91] John D. Dixon. Factorization and primality tests. *The American Mathematical Monthly*, 91(6):333–352, 1984.

[92] Dorit Dor, Johan Håstad, Staffan Ulfberg, and Uri Zwick. On lower bounds for selecting the median. *SIAM Journal on Discrete Mathematics*, 14(3):299–311, 2001.

[93] Dorit Dor and Uri Zwick. Selecting the median. *SIAM Journal on Computing*, 28(5):1722–1758, 1999.

[94] Dorit Dor and Uri Zwick. Median selection requires $(2 + \epsilon)n$ comparisons. *SIAM Journal on Discrete Mathematics*, 14(3):312–325, 2001.

[95] Alvin W. Drake. *Fundamentals of Applied Probability Theory*. McGraw-Hill, 1967.

[96] James R. Driscoll, Harold N. Gabow, Ruth Shrairman, and Robert E. Tarjan. Relaxed heaps: An alternative to Fibonacci heaps with applications to parallel computation. *Communications of the ACM*, 31(11):1343–1354, 1988.

[97] James R. Driscoll, Neil Sarnak, Daniel D. Sleator, and Robert E. Tarjan. Making data structures persistent. *Journal of Computer and System Sciences*, 38(1):86–124, 1989.

[98] Derek L. Eager, John Zahorjan, and Edward D. Lazowska. Speedup versus efficiency in parallel systems. *IEEE Transactions on Computers*, 38(3):408–423, 1989.

[99] Herbert Edelsbrunner. *Algorithms in Combinatorial Geometry*, volume 10 of *EATCS Monographs on Theoretical Computer Science*. Springer, 1987.

[100] Jack Edmonds. Paths, trees, and flowers. *Canadian Journal of Mathematics*, 17:449–467, 1965.

[101] Jack Edmonds. Matroids and the greedy algorithm. *Mathematical Programming*, 1(1):127–136, 1971.

[102] Jack Edmonds and Richard M. Karp. Theoretical improvements in the algorithmic efficiency for network flow problems. *Journal of the ACM*, 19(2):248–264, 1972.

[103] Shimon Even. *Graph Algorithms*. Computer Science Press, 1979.

[104] William Feller. *An Introduction to Probability Theory and Its Applications*. John Wiley & Sons, third edition, 1968.

[105] Robert W. Floyd. Algorithm 97 (SHORTEST PATH). *Communications of the ACM*, 5(6):345, 1962.

[106] Robert W. Floyd. Algorithm 245 (TREESORT). *Communications of the ACM*, 7(12):701, 1964.

[107] Robert W. Floyd. Permuting information in idealized two-level storage. In Raymond E. Miller and James W. Thatcher, editors, *Complexity of Computer Computations*, pages 105–109. Plenum Press, 1972.

[108] Robert W. Floyd and Ronald L. Rivest. Expected time bounds for selection. *Communications of the ACM*, 18(3):165–172, 1975.

[109] Lestor R. Ford, Jr. and D. R. Fulkerson. *Flows in Networks*. Princeton University Press, 1962.

[110] Lestor R. Ford, Jr. and Selmer M. Johnson. A tournament problem. *The American Mathematical Monthly*, 66(5):387–389, 1959.

[111] Michael L. Fredman. New bounds on the complexity of the shortest path problem. *SIAM Journal on Computing*, 5(1):83–89, 1976.

[112] Michael L. Fredman, János Komlós, and Endre Szemerédi. Storing a sparse table with $O(1)$ worst case access time. *Journal of the ACM*, 31(3):538–544, 1984.

[113] Michael L. Fredman and Michael E. Saks. The cell probe complexity of dynamic data structures. In *Proceedings of the Twenty First Annual ACM Symposium on Theory of Computing*, pages 345–354, 1989.

[114] Michael L. Fredman and Robert E. Tarjan. Fibonacci heaps and their uses in improved network optimization algorithms. *Journal of the ACM*, 34(3):596–615, 1987.

[115] Michael L. Fredman and Dan E. Willard. Surpassing the information theoretic bound with fusion trees. *Journal of Computer and System Sciences*, 47(3):424–436, 1993.

[116] Michael L. Fredman and Dan E. Willard. Trans-dichotomous algorithms for minimum spanning trees and shortest paths. *Journal of Computer and System Sciences*, 48(3):533–551, 1994.

[117] Matteo Frigo and Steven G. Johnson. The design and implementation of FFTW3. *Proceedings of the IEEE*, 93(2):216–231, 2005.

[118] Matteo Frigo, Charles E. Leiserson, and Keith H. Randall. The implementation of the Cilk-5 multithreaded language. In *Proceedings of the 1998 ACM SIGPLAN Conference on Programming Language Design and Implementation*, pages 212–223, 1998.

[119] Harold N. Gabow. Path-based depth-first search for strong and biconnected components. *Information Processing Letters*, 74(3–4):107–114, 2000.

[120] Harold N. Gabow, Z. Galil, T. Spencer, and Robert E. Tarjan. Efficient algorithms for finding minimum spanning trees in undirected and directed graphs. *Combinatorica*, 6(2):109–122, 1986.

[121] Harold N. Gabow and Robert E. Tarjan. A linear-time algorithm for a special case of disjoint set union. *Journal of Computer and System Sciences*, 30(2):209–221, 1985.

[122] Harold N. Gabow and Robert E. Tarjan. Faster scaling algorithms for network problems. *SIAM Journal on Computing*, 18(5):1013–1036, 1989.

[123] Zvi Galil and Oded Margalit. All pairs shortest distances for graphs with small integer length edges. *Information and Computation*, 134(2):103–139, 1997.

[124] Zvi Galil and Oded Margalit. All pairs shortest paths for graphs with small integer length edges. *Journal of Computer and System Sciences*, 54(2):243–254, 1997.

[125] Zvi Galil and Kunsoo Park. Dynamic programming with convexity, concavity and sparsity. *Theoretical Computer Science*, 92(1):49–76, 1992.

[126] Zvi Galil and Joel Seiferas. Time-space-optimal string matching. *Journal of Computer and System Sciences*, 26(3):280–294, 1983.

[127] Igal Galperin and Ronald L. Rivest. Scapegoat trees. In *Proceedings of the 4th ACM-SIAM Symposium on Discrete Algorithms*, pages 165–174, 1993.

[128] Michael R. Garey, R. L. Graham, and J. D. Ullman. Worst-case analyis of memory allocation algorithms. In *Proceedings of the Fourth Annual ACM Symposium on Theory of Computing*, pages 143–150, 1972.

[129] Michael R. Garey and David S. Johnson. *Computers and Intractability: A Guide to the Theory of NP-Completeness*. W. H. Freeman, 1979.

[130] Saul Gass. *Linear Programming: Methods and Applications*. International Thomson Publishing, fourth edition, 1975.

[131] Fănică Gavril. Algorithms for minimum coloring, maximum clique, minimum covering by cliques, and maximum independent set of a chordal graph. *SIAM Journal on Computing*, 1(2):180–187, 1972.

[132] Alan George and Joseph W-H Liu. *Computer Solution of Large Sparse Positive Definite Systems*. Prentice Hall, 1981.

[133] E. N. Gilbert and E. F. Moore. Variable-length binary encodings. *Bell System Technical Journal*, 38(4):933–967, 1959.

[134] Michel X. Goemans and David P. Williamson. Improved approximation algorithms for maximum cut and satisfiability problems using semidefinite programming. *Journal of the ACM*, 42(6):1115–1145, 1995.

[135] Michel X. Goemans and David P. Williamson. The primal-dual method for approximation algorithms and its application to network design problems. In Dorit S. Hochbaum, editor, *Approximation Algorithms for NP-Hard Problems*, pages 144–191. PWS Publishing Company, 1997.

[136] Andrew V. Goldberg. *Efficient Graph Algorithms for Sequential and Parallel Computers*. PhD thesis, Department of Electrical Engineering and Computer Science, MIT, 1987.

[137] Andrew V. Goldberg. Scaling algorithms for the shortest paths problem. *SIAM Journal on Computing*, 24(3):494–504, 1995.

[138] Andrew V. Goldberg and Satish Rao. Beyond the flow decomposition barrier. *Journal of the ACM*, 45(5):783–797, 1998.

[139] Andrew V. Goldberg, Éva Tardos, and Robert E. Tarjan. Network flow algorithms. In Bernhard Korte, László Lovász, Hans Jürgen Prömel, and Alexander Schrijver, editors, *Paths, Flows, and VLSI-Layout*, pages 101–164. Springer, 1990.

[140] Andrew V. Goldberg and Robert E. Tarjan. A new approach to the maximum flow problem. *Journal of the ACM*, 35(4):921–940, 1988.

[141] D. Goldfarb and M. J. Todd. Linear programming. In G. L. Nemhauser, A. H. G. Rinnooy-Kan, and M. J. Todd, editors, *Handbook in Operations Research and Management Science, Vol. 1, Optimization*, pages 73–170. Elsevier Science Publishers, 1989.

[142] Shafi Goldwasser and Silvio Micali. Probabilistic encryption. *Journal of Computer and System Sciences*, 28(2):270–299, 1984.

[143] Shafi Goldwasser, Silvio Micali, and Ronald L. Rivest. A digital signature scheme secure against adaptive chosen-message attacks. *SIAM Journal on Computing*, 17(2):281–308, 1988.

[144] Gene H. Golub and Charles F. Van Loan. *Matrix Computations*. The Johns Hopkins University Press, third edition, 1996.

[145] G. H. Gonnet. *Handbook of Algorithms and Data Structures*. Addison-Wesley, 1984.

[146] Rafael C. Gonzalez and Richard E. Woods. *Digital Image Processing*. Addison-Wesley, 1992.

[147] Michael T. Goodrich and Roberto Tamassia. *Data Structures and Algorithms in Java*. John Wiley & Sons, 1998.

[148] Michael T. Goodrich and Roberto Tamassia. *Algorithm Design: Foundations, Analysis, and Internet Examples*. John Wiley & Sons, 2001.

[149] Ronald L. Graham. Bounds for certain multiprocessor anomalies. *Bell System Technical Journal*, 45(9):1563–1581, 1966.

[150] Ronald L. Graham. An efficient algorithm for determining the convex hull of a finite planar set. *Information Processing Letters*, 1(4):132–133, 1972.

[151] Ronald L. Graham and Pavol Hell. On the history of the minimum spanning tree problem. *Annals of the History of Computing*, 7(1):43–57, 1985.

[152] Ronald L. Graham, Donald E. Knuth, and Oren Patashnik. *Concrete Mathematics*. Addison-Wesley, second edition, 1994.

[153] David Gries. *The Science of Programming*. Springer, 1981.

[154] M. Grötschel, László Lovász, and Alexander Schrijver. *Geometric Algorithms and Combinatorial Optimization*. Springer, 1988.

[155] Leo J. Guibas and Robert Sedgewick. A dichromatic framework for balanced trees. In *Proceedings of the 19th Annual Symposium on Foundations of Computer Science*, pages 8–21, 1978.

[156] Dan Gusfield. *Algorithms on Strings, Trees, and Sequences: Computer Science and Computational Biology*. Cambridge University Press, 1997.

[157] H. Halberstam and R. E. Ingram, editors. *The Mathematical Papers of Sir William Rowan Hamilton*, volume III (Algebra). Cambridge University Press, 1967.

[158] Yijie Han. Improved fast integer sorting in linear space. In *Proceedings of the 12th ACM-SIAM Symposium on Discrete Algorithms*, pages 793–796, 2001.

[159] Yijie Han. An $O(n^3 (\log \log n / \log n)^{5/4})$ time algorithm for all pairs shortest path. *Algorithmica*, 51(4):428–434, 2008.

[160] Frank Harary. *Graph Theory*. Addison-Wesley, 1969.

[161] Gregory C. Harfst and Edward M. Reingold. A potential-based amortized analysis of the union-find data structure. *SIGACT News*, 31(3):86–95, 2000.

[162] J. Hartmanis and R. E. Stearns. On the computational complexity of algorithms. *Transactions of the American Mathematical Society*, 117:285–306, May 1965.

[163] Michael T. Heideman, Don H. Johnson, and C. Sidney Burrus. Gauss and the history of the Fast Fourier Transform. *IEEE ASSP Magazine*, 1(4):14–21, 1984.

[164] Monika R. Henzinger and Valerie King. Fully dynamic biconnectivity and transitive closure. In *Proceedings of the 36th Annual Symposium on Foundations of Computer Science*, pages 664–672, 1995.

[165] Monika R. Henzinger and Valerie King. Randomized fully dynamic graph algorithms with polylogarithmic time per operation. *Journal of the ACM*, 46(4):502–516, 1999.

[166] Monika R. Henzinger, Satish Rao, and Harold N. Gabow. Computing vertex connectivity: New bounds from old techniques. *Journal of Algorithms*, 34(2):222–250, 2000.

[167] Nicholas J. Higham. Exploiting fast matrix multiplication within the level 3 BLAS. *ACM Transactions on Mathematical Software*, 16(4):352–368, 1990.

[168] W. Daniel Hillis and Jr. Guy L. Steele. Data parallel algorithms. *Communications of the ACM*, 29(12):1170–1183, 1986.

[169] C. A. R. Hoare. Algorithm 63 (PARTITION) and algorithm 65 (FIND). *Communications of the ACM*, 4(7):321–322, 1961.

[170] C. A. R. Hoare. Quicksort. *The Computer Journal*, 5(1):10–15, 1962.

[171] Dorit S. Hochbaum. Efficient bounds for the stable set, vertex cover and set packing problems. *Discrete Applied Mathematics*, 6(3):243–254, 1983.

[172] Dorit S. Hochbaum, editor. *Approximation Algorithms for NP-Hard Problems*. PWS Publishing Company, 1997.

[173] W. Hoeffding. On the distribution of the number of successes in independent trials. *Annals of Mathematical Statistics*, 27(3):713–721, 1956.

[174] Micha Hofri. *Probabilistic Analysis of Algorithms*. Springer, 1987.

[175] Micha Hofri. *Analysis of Algorithms*. Oxford University Press, 1995.

[176] John E. Hopcroft and Richard M. Karp. An $n^{5/2}$ algorithm for maximum matchings in bipartite graphs. *SIAM Journal on Computing*, 2(4):225–231, 1973.

[177] John E. Hopcroft, Rajeev Motwani, and Jeffrey D. Ullman. *Introduction to Automata Theory, Languages, and Computation*. Addison Wesley, third edition, 2006.

[178] John E. Hopcroft and Robert E. Tarjan. Efficient algorithms for graph manipulation. *Communications of the ACM*, 16(6):372–378, 1973.

[179] John E. Hopcroft and Jeffrey D. Ullman. Set merging algorithms. *SIAM Journal on Computing*, 2(4):294–303, 1973.

[180] John E. Hopcroft and Jeffrey D. Ullman. *Introduction to Automata Theory, Languages, and Computation*. Addison-Wesley, 1979.

[181] Ellis Horowitz, Sartaj Sahni, and Sanguthevar Rajasekaran. *Computer Algorithms*. Computer Science Press, 1998.

[182] T. C. Hu and M. T. Shing. Computation of matrix chain products. Part I. *SIAM Journal on Computing*, 11(2):362–373, 1982.

[183] T. C. Hu and M. T. Shing. Computation of matrix chain products. Part II. *SIAM Journal on Computing*, 13(2):228–251, 1984.

[184] T. C. Hu and A. C. Tucker. Optimal computer search trees and variable-length alphabetic codes. *SIAM Journal on Applied Mathematics*, 21(4):514–532, 1971.

[185] David A. Huffman. A method for the construction of minimum-redundancy codes. *Proceedings of the IRE*, 40(9):1098–1101, 1952.

[186] Steven Huss-Lederman, Elaine M. Jacobson, Jeremy R. Johnson, Anna Tsao, and Thomas Turnbull. Implementation of Strassen's algorithm for matrix multiplication. In *Proceedings of the 1996 ACM/IEEE Conference on Supercomputing*, article 32, 1996.

[187] Oscar H. Ibarra and Chul E. Kim. Fast approximation algorithms for the knapsack and sum of subset problems. *Journal of the ACM*, 22(4):463–468, 1975.

[188] E. J. Isaac and R. C. Singleton. Sorting by address calculation. *Journal of the ACM*, 3(3):169–174, 1956.

[189] R. A. Jarvis. On the identification of the convex hull of a finite set of points in the plane. *Information Processing Letters*, 2(1):18–21, 1973.

[190] David S. Johnson. Approximation algorithms for combinatorial problems. *Journal of Computer and System Sciences*, 9(3):256–278, 1974.

[191] David S. Johnson. The NP-completeness column: An ongoing guide—The tale of the second prover. *Journal of Algorithms*, 13(3):502–524, 1992.

[192] Donald B. Johnson. Efficient algorithms for shortest paths in sparse networks. *Journal of the ACM*, 24(1):1–13, 1977.

[193] Richard Johnsonbaugh and Marcus Schaefer. *Algorithms*. Pearson Prentice Hall, 2004.

[194] A. Karatsuba and Yu. Ofman. Multiplication of multidigit numbers on automata. *Soviet Physics—Doklady*, 7(7):595–596, 1963. Translation of an article in *Doklady Akademii Nauk SSSR*, 145(2), 1962.

[195] David R. Karger, Philip N. Klein, and Robert E. Tarjan. A randomized linear-time algorithm to find minimum spanning trees. *Journal of the ACM*, 42(2):321–328, 1995.

[196] David R. Karger, Daphne Koller, and Steven J. Phillips. Finding the hidden path: Time bounds for all-pairs shortest paths. *SIAM Journal on Computing*, 22(6):1199–1217, 1993.

[197] Howard Karloff. *Linear Programming*. Birkhäuser, 1991.

[198] N. Karmarkar. A new polynomial-time algorithm for linear programming. *Combinatorica*, 4(4):373–395, 1984.

[199] Richard M. Karp. Reducibility among combinatorial problems. In Raymond E. Miller and James W. Thatcher, editors, *Complexity of Computer Computations*, pages 85–103. Plenum Press, 1972.

[200] Richard M. Karp. An introduction to randomized algorithms. *Discrete Applied Mathematics*, 34(1–3):165–201, 1991.

[201] Richard M. Karp and Michael O. Rabin. Efficient randomized pattern-matching algorithms. *IBM Journal of Research and Development*, 31(2):249–260, 1987.

[202] A. V. Karzanov. Determining the maximal flow in a network by the method of preflows. *Soviet Mathematics Doklady*, 15(2):434–437, 1974.

[203] Valerie King. A simpler minimum spanning tree verification algorithm. *Algorithmica*, 18(2):263–270, 1997.

[204] Valerie King, Satish Rao, and Robert E. Tarjan. A faster deterministic maximum flow algorithm. *Journal of Algorithms*, 17(3):447–474, 1994.

[205] Jeffrey H. Kingston. *Algorithms and Data Structures: Design, Correctness, Analysis*. Addison-Wesley, second edition, 1997.

[206] D. G. Kirkpatrick and R. Seidel. The ultimate planar convex hull algorithm? *SIAM Journal on Computing*, 15(2):287–299, 1986.

[207] Philip N. Klein and Neal E. Young. Approximation algorithms for NP-hard optimization problems. In *CRC Handbook on Algorithms*, pages 34-1–34-19. CRC Press, 1999.

[208] Jon Kleinberg and Éva Tardos. *Algorithm Design*. Addison-Wesley, 2006.

[209] Donald E. Knuth. *Fundamental Algorithms*, volume 1 of *The Art of Computer Programming*. Addison-Wesley, 1968. Third edition, 1997.

[210] Donald E. Knuth. *Seminumerical Algorithms*, volume 2 of *The Art of Computer Programming*. Addison-Wesley, 1969. Third edition, 1997.

[211] Donald E. Knuth. *Sorting and Searching*, volume 3 of *The Art of Computer Programming*. Addison-Wesley, 1973. Second edition, 1998.

[212] Donald E. Knuth. Optimum binary search trees. *Acta Informatica*, 1(1):14–25, 1971.

[213] Donald E. Knuth. Big omicron and big omega and big theta. *SIGACT News*, 8(2):18–23, 1976.

[214] Donald E. Knuth, James H. Morris, Jr., and Vaughan R. Pratt. Fast pattern matching in strings. *SIAM Journal on Computing*, 6(2):323–350, 1977.

[215] J. Komlós. Linear verification for spanning trees. *Combinatorica*, 5(1):57–65, 1985.

[216] Bernhard Korte and László Lovász. Mathematical structures underlying greedy algorithms. In F. Gecseg, editor, *Fundamentals of Computation Theory*, volume 117 of *Lecture Notes in Computer Science*, pages 205–209. Springer, 1981.

[217] Bernhard Korte and László Lovász. Structural properties of greedoids. *Combinatorica*, 3(3–4):359–374, 1983.

[218] Bernhard Korte and László Lovász. Greedoids—A structural framework for the greedy algorithm. In W. Pulleybank, editor, *Progress in Combinatorial Optimization*, pages 221–243. Academic Press, 1984.

[219] Bernhard Korte and László Lovász. Greedoids and linear objective functions. *SIAM Journal on Algebraic and Discrete Methods*, 5(2):229–238, 1984.

[220] Dexter C. Kozen. *The Design and Analysis of Algorithms*. Springer, 1992.

[221] David W. Krumme, George Cybenko, and K. N. Venkataraman. Gossiping in minimal time. *SIAM Journal on Computing*, 21(1):111–139, 1992.

[222] Joseph B. Kruskal, Jr. On the shortest spanning subtree of a graph and the traveling salesman problem. *Proceedings of the American Mathematical Society*, 7(1):48–50, 1956.

[223] Leslie Lamport. How to make a multiprocessor computer that correctly executes multiprocess programs. *IEEE Transactions on Computers*, C-28(9):690–691, 1979.

[224] Eugene L. Lawler. *Combinatorial Optimization: Networks and Matroids*. Holt, Rinehart, and Winston, 1976.

[225] Eugene L. Lawler, J. K. Lenstra, A. H. G. Rinnooy Kan, and D. B. Shmoys, editors. *The Traveling Salesman Problem*. John Wiley & Sons, 1985.

[226] C. Y. Lee. An algorithm for path connection and its applications. *IRE Transactions on Electronic Computers*, EC-10(3):346–365, 1961.

[227] Tom Leighton. Tight bounds on the complexity of parallel sorting. *IEEE Transactions on Computers*, C-34(4):344–354, 1985.

[228] Tom Leighton. Notes on better master theorems for divide-and-conquer recurrences. Class notes. Available at http://citeseer.ist.psu.edu/252350.html, October 1996.

[229] Tom Leighton and Satish Rao. Multicommodity max-flow min-cut theorems and their use in designing approximation algorithms. *Journal of the ACM*, 46(6):787–832, 1999.

[230] Daan Leijen and Judd Hall. Optimize managed code for multi-core machines. *MSDN Magazine*, October 2007.

[231] Debra A. Lelewer and Daniel S. Hirschberg. Data compression. *ACM Computing Surveys*, 19(3):261–296, 1987.

[232] A. K. Lenstra, H. W. Lenstra, Jr., M. S. Manasse, and J. M. Pollard. The number field sieve. In A. K. Lenstra and H. W. Lenstra, Jr., editors, *The Development of the Number Field Sieve*, volume 1554 of *Lecture Notes in Mathematics*, pages 11–42. Springer, 1993.

[233] H. W. Lenstra, Jr. Factoring integers with elliptic curves. *Annals of Mathematics*, 126(3):649–673, 1987.

[234] L. A. Levin. Universal sorting problems. *Problemy Peredachi Informatsii*, 9(3):265–266, 1973. In Russian.

[235] Anany Levitin. *Introduction to the Design & Analysis of Algorithms*. Addison-Wesley, 2007.

[236] Harry R. Lewis and Christos H. Papadimitriou. *Elements of the Theory of Computation*. Prentice Hall, second edition, 1998.

[237] C. L. Liu. *Introduction to Combinatorial Mathematics*. McGraw-Hill, 1968.

[238] László Lovász. On the ratio of optimal integral and fractional covers. *Discrete Mathematics*, 13(4):383–390, 1975.

[239] László Lovász and Michael D. Plummer. *Matching Theory*, volume 121 of *Annals of Discrete Mathematics*. North Holland, 1986.

[240] Bruce M. Maggs and Serge A. Plotkin. Minimum-cost spanning tree as a path-finding problem. *Information Processing Letters*, 26(6):291–293, 1988.

[241] Michael Main. *Data Structures and Other Objects Using Java*. Addison-Wesley, 1999.

[242] Udi Manber. *Introduction to Algorithms: A Creative Approach*. Addison-Wesley, 1989.

[243] Conrado Martínez and Salvador Roura. Randomized binary search trees. *Journal of the ACM*, 45(2):288–323, 1998.

[244] William J. Masek and Michael S. Paterson. A faster algorithm computing string edit distances. *Journal of Computer and System Sciences*, 20(1):18–31, 1980.

[245] H. A. Maurer, Th. Ottmann, and H.-W. Six. Implementing dictionaries using binary trees of very small height. *Information Processing Letters*, 5(1):11–14, 1976.

[246] Ernst W. Mayr, Hans Jürgen Prömel, and Angelika Steger, editors. *Lectures on Proof Verification and Approximation Algorithms*, volume 1367 of *Lecture Notes in Computer Science*. Springer, 1998.

[247] C. C. McGeoch. All pairs shortest paths and the essential subgraph. *Algorithmica*, 13(5):426–441, 1995.

[248] M. D. McIlroy. A killer adversary for quicksort. *Software—Practice and Experience*, 29(4):341–344, 1999.

[249] Kurt Mehlhorn. *Sorting and Searching*, volume 1 of *Data Structures and Algorithms*. Springer, 1984.

[250] Kurt Mehlhorn. *Graph Algorithms and NP-Completeness*, volume 2 of *Data Structures and Algorithms*. Springer, 1984.

[251] Kurt Mehlhorn. *Multidimensional Searching and Computational Geometry*, volume 3 of *Data Structures and Algorithms*. Springer, 1984.

[252] Kurt Mehlhorn and Stefan Näher. Bounded ordered dictionaries in $O(\log \log N)$ time and $O(n)$ space. *Information Processing Letters*, 35(4):183–189, 1990.

[253] Kurt Mehlhorn and Stefan Näher. *LEDA: A Platform for Combinatorial and Geometric Computing*. Cambridge University Press, 1999.

[254] Alfred J. Menezes, Paul C. van Oorschot, and Scott A. Vanstone. *Handbook of Applied Cryptography*. CRC Press, 1997.

[255] Gary L. Miller. Riemann's hypothesis and tests for primality. *Journal of Computer and System Sciences*, 13(3):300–317, 1976.

[256] John C. Mitchell. *Foundations for Programming Languages*. The MIT Press, 1996.

[257] Joseph S. B. Mitchell. Guillotine subdivisions approximate polygonal subdivisions: A simple polynomial-time approximation scheme for geometric TSP, k-MST, and related problems. *SIAM Journal on Computing*, 28(4):1298–1309, 1999.

[258] Louis Monier. *Algorithmes de Factorisation D'Entiers*. PhD thesis, L'Université Paris-Sud, 1980.

[259] Louis Monier. Evaluation and comparison of two efficient probabilistic primality testing algorithms. *Theoretical Computer Science*, 12(1):97–108, 1980.

[260] Edward F. Moore. The shortest path through a maze. In *Proceedings of the International Symposium on the Theory of Switching*, pages 285–292. Harvard University Press, 1959.

[261] Rajeev Motwani, Joseph (Seffi) Naor, and Prabhakar Raghavan. Randomized approximation algorithms in combinatorial optimization. In Dorit Hochbaum, editor, *Approximation Algorithms for NP-Hard Problems*, chapter 11, pages 447–481. PWS Publishing Company, 1997.

[262] Rajeev Motwani and Prabhakar Raghavan. *Randomized Algorithms*. Cambridge University Press, 1995.

[263] J. I. Munro and V. Raman. Fast stable in-place sorting with $O(n)$ data moves. *Algorithmica*, 16(2):151–160, 1996.

[264] J. Nievergelt and E. M. Reingold. Binary search trees of bounded balance. *SIAM Journal on Computing*, 2(1):33–43, 1973.

[265] Ivan Niven and Herbert S. Zuckerman. *An Introduction to the Theory of Numbers*. John Wiley & Sons, fourth edition, 1980.

[266] Alan V. Oppenheim and Ronald W. Schafer, with John R. Buck. *Discrete-Time Signal Processing*. Prentice Hall, second edition, 1998.

[267] Alan V. Oppenheim and Alan S. Willsky, with S. Hamid Nawab. *Signals and Systems*. Prentice Hall, second edition, 1997.

[268] James B. Orlin. A polynomial time primal network simplex algorithm for minimum cost flows. *Mathematical Programming*, 78(1):109–129, 1997.

[269] Joseph O'Rourke. *Computational Geometry in C*. Cambridge University Press, second edition, 1998.

[270] Christos H. Papadimitriou. *Computational Complexity*. Addison-Wesley, 1994.

[271] Christos H. Papadimitriou and Kenneth Steiglitz. *Combinatorial Optimization: Algorithms and Complexity*. Prentice Hall, 1982.

[272] Michael S. Paterson. Progress in selection. In *Proceedings of the Fifth Scandinavian Workshop on Algorithm Theory*, pages 368–379, 1996.

[273] Mihai Pătraşcu and Mikkel Thorup. Time-space trade-offs for predecessor search. In *Proceedings of the 38th Annual ACM Symposium on Theory of Computing*, pages 232–240, 2006.

[274] Mihai Pătraşcu and Mikkel Thorup. Randomization does not help searching predecessors. In *Proceedings of the 18th ACM-SIAM Symposium on Discrete Algorithms*, pages 555–564, 2007.

[275] Pavel A. Pevzner. *Computational Molecular Biology: An Algorithmic Approach*. The MIT Press, 2000.

[276] Steven Phillips and Jeffery Westbrook. Online load balancing and network flow. In *Proceedings of the 25th Annual ACM Symposium on Theory of Computing*, pages 402–411, 1993.

[277] J. M. Pollard. A Monte Carlo method for factorization. *BIT*, 15(3):331–334, 1975.

[278] J. M. Pollard. Factoring with cubic integers. In A. K. Lenstra and H. W. Lenstra, Jr., editors, *The Development of the Number Field Sieve*, volume 1554 of *Lecture Notes in Mathematics*, pages 4–10. Springer, 1993.

[279] Carl Pomerance. On the distribution of pseudoprimes. *Mathematics of Computation*, 37(156):587–593, 1981.

[280] Carl Pomerance, editor. *Proceedings of the AMS Symposia in Applied Mathematics: Computational Number Theory and Cryptography*. American Mathematical Society, 1990.

[281] William K. Pratt. *Digital Image Processing*. John Wiley & Sons, fourth edition, 2007.

[282] Franco P. Preparata and Michael Ian Shamos. *Computational Geometry: An Introduction*. Springer, 1985.

[283] William H. Press, Saul A. Teukolsky, William T. Vetterling, and Brian P. Flannery. *Numerical Recipes in C++: The Art of Scientific Computing*. Cambridge University Press, second edition, 2002.

[284] William H. Press, Saul A. Teukolsky, William T. Vetterling, and Brian P. Flannery. *Numerical Recipes: The Art of Scientific Computing*. Cambridge University Press, third edition, 2007.

[285] R. C. Prim. Shortest connection networks and some generalizations. *Bell System Technical Journal*, 36(6):1389–1401, 1957.

[286] William Pugh. Skip lists: A probabilistic alternative to balanced trees. *Communications of the ACM*, 33(6):668–676, 1990.

[287] Paul W. Purdom, Jr. and Cynthia A. Brown. *The Analysis of Algorithms*. Holt, Rinehart, and Winston, 1985.

[288] Michael O. Rabin. Probabilistic algorithms. In J. F. Traub, editor, *Algorithms and Complexity: New Directions and Recent Results*, pages 21–39. Academic Press, 1976.

[289] Michael O. Rabin. Probabilistic algorithm for testing primality. *Journal of Number Theory*, 12(1):128–138, 1980.

[290] P. Raghavan and C. D. Thompson. Randomized rounding: A technique for provably good algorithms and algorithmic proofs. *Combinatorica*, 7(4):365–374, 1987.

[291] Rajeev Raman. Recent results on the single-source shortest paths problem. *SIGACT News*, 28(2):81–87, 1997.

[292] James Reinders. *Intel Threading Building Blocks: Outfitting C++ for Multi-core Processor Parallelism*. O'Reilly Media, Inc., 2007.

[293] Edward M. Reingold, Jürg Nievergelt, and Narsingh Deo. *Combinatorial Algorithms: Theory and Practice*. Prentice Hall, 1977.

[294] Edward M. Reingold, Kenneth J. Urban, and David Gries. K-M-P string matching revisited. *Information Processing Letters*, 64(5):217–223, 1997.

[295] Hans Riesel. *Prime Numbers and Computer Methods for Factorization*, volume 126 of *Progress in Mathematics*. Birkhäuser, second edition, 1994.

[296] Ronald L. Rivest, Adi Shamir, and Leonard M. Adleman. A method for obtaining digital signatures and public-key cryptosystems. *Communications of the ACM*, 21(2):120–126, 1978. See also U.S. Patent 4,405,829.

[297] Herbert Robbins. A remark on Stirling's formula. *American Mathematical Monthly*, 62(1):26–29, 1955.

[298] D. J. Rosenkrantz, R. E. Stearns, and P. M. Lewis. An analysis of several heuristics for the traveling salesman problem. *SIAM Journal on Computing*, 6(3):563–581, 1977.

[299] Salvador Roura. An improved master theorem for divide-and-conquer recurrences. In *Proceedings of Automata, Languages and Programming, 24th International Colloquium, ICALP'97*, volume 1256 of *Lecture Notes in Computer Science*, pages 449–459. Springer, 1997.

[300] Y. A. Rozanov. *Probability Theory: A Concise Course*. Dover, 1969.

[301] S. Sahni and T. Gonzalez. P-complete approximation problems. *Journal of the ACM*, 23(3):555–565, 1976.

[302] A. Schönhage, M. Paterson, and N. Pippenger. Finding the median. *Journal of Computer and System Sciences*, 13(2):184–199, 1976.

[303] Alexander Schrijver. *Theory of Linear and Integer Programming*. John Wiley & Sons, 1986.

[304] Alexander Schrijver. Paths and flows—A historical survey. *CWI Quarterly*, 6(3):169–183, 1993.

[305] Robert Sedgewick. Implementing quicksort programs. *Communications of the ACM*, 21(10):847–857, 1978.

[306] Robert Sedgewick. *Algorithms*. Addison-Wesley, second edition, 1988.

[307] Robert Sedgewick and Philippe Flajolet. *An Introduction to the Analysis of Algorithms*. Addison-Wesley, 1996.

[308] Raimund Seidel. On the all-pairs-shortest-path problem in unweighted undirected graphs. *Journal of Computer and System Sciences*, 51(3):400–403, 1995.

[309] Raimund Seidel and C. R. Aragon. Randomized search trees. *Algorithmica*, 16(4–5):464–497, 1996.

[310] João Setubal and João Meidanis. *Introduction to Computational Molecular Biology*. PWS Publishing Company, 1997.

[311] Clifford A. Shaffer. *A Practical Introduction to Data Structures and Algorithm Analysis*. Prentice Hall, second edition, 2001.

[312] Jeffrey Shallit. Origins of the analysis of the Euclidean algorithm. *Historia Mathematica*, 21(4):401–419, 1994.

[313] Michael I. Shamos and Dan Hoey. Geometric intersection problems. In *Proceedings of the 17th Annual Symposium on Foundations of Computer Science*, pages 208–215, 1976.

[314] M. Sharir. A strong-connectivity algorithm and its applications in data flow analysis. *Computers and Mathematics with Applications*, 7(1):67–72, 1981.

[315] David B. Shmoys. Computing near-optimal solutions to combinatorial optimization problems. In William Cook, László Lovász, and Paul Seymour, editors, *Combinatorial Optimization*, volume 20 of *DIMACS Series in Discrete Mathematics and Theoretical Computer Science*. American Mathematical Society, 1995.

[316] Avi Shoshan and Uri Zwick. All pairs shortest paths in undirected graphs with integer weights. In *Proceedings of the 40th Annual Symposium on Foundations of Computer Science*, pages 605–614, 1999.

[317] Michael Sipser. *Introduction to the Theory of Computation*. Thomson Course Technology, second edition, 2006.

[318] Steven S. Skiena. *The Algorithm Design Manual*. Springer, second edition, 1998.

[319] Daniel D. Sleator and Robert E. Tarjan. A data structure for dynamic trees. *Journal of Computer and System Sciences*, 26(3):362–391, 1983.

[320] Daniel D. Sleator and Robert E. Tarjan. Self-adjusting binary search trees. *Journal of the ACM*, 32(3):652–686, 1985.

[321] Joel Spencer. *Ten Lectures on the Probabilistic Method*, volume 64 of *CBMS-NSF Regional Conference Series in Applied Mathematics*. Society for Industrial and Applied Mathematics, 1993.

[322] Daniel A. Spielman and Shang-Hua Teng. Smoothed analysis of algorithms: Why the simplex algorithm usually takes polynomial time. *Journal of the ACM*, 51(3):385–463, 2004.

[323] Gilbert Strang. *Introduction to Applied Mathematics*. Wellesley-Cambridge Press, 1986.

[324] Gilbert Strang. *Linear Algebra and Its Applications*. Thomson Brooks/Cole, fourth edition, 2006.

[325] Volker Strassen. Gaussian elimination is not optimal. *Numerische Mathematik*, 14(3):354–356, 1969.

[326] T. G. Szymanski. A special case of the maximal common subsequence problem. Technical Report TR-170, Computer Science Laboratory, Princeton University, 1975.

[327] Robert E. Tarjan. Depth first search and linear graph algorithms. *SIAM Journal on Computing*, 1(2):146–160, 1972.

[328] Robert E. Tarjan. Efficiency of a good but not linear set union algorithm. *Journal of the ACM*, 22(2):215–225, 1975.

[329] Robert E. Tarjan. A class of algorithms which require nonlinear time to maintain disjoint sets. *Journal of Computer and System Sciences*, 18(2):110–127, 1979.

[330] Robert E. Tarjan. *Data Structures and Network Algorithms*. Society for Industrial and Applied Mathematics, 1983.

[331] Robert E. Tarjan. Amortized computational complexity. *SIAM Journal on Algebraic and Discrete Methods*, 6(2):306–318, 1985.

[332] Robert E. Tarjan. Class notes: Disjoint set union. COS 423, Princeton University, 1999.

[333] Robert E. Tarjan and Jan van Leeuwen. Worst-case analysis of set union algorithms. *Journal of the ACM*, 31(2):245–281, 1984.

[334] George B. Thomas, Jr., Maurice D. Weir, Joel Hass, and Frank R. Giordano. *Thomas' Calculus*. Addison-Wesley, eleventh edition, 2005.

[335] Mikkel Thorup. Faster deterministic sorting and priority queues in linear space. In *Proceedings of the 9th ACM-SIAM Symposium on Discrete Algorithms*, pages 550–555, 1998.

[336] Mikkel Thorup. Undirected single-source shortest paths with positive integer weights in linear time. *Journal of the ACM*, 46(3):362–394, 1999.

[337] Mikkel Thorup. On RAM priority queues. *SIAM Journal on Computing*, 30(1):86–109, 2000.

[338] Richard Tolimieri, Myoung An, and Chao Lu. *Mathematics of Multidimensional Fourier Transform Algorithms*. Springer, second edition, 1997.

[339] P. van Emde Boas. Preserving order in a forest in less than logarithmic time. In *Proceedings of the 16th Annual Symposium on Foundations of Computer Science*, pages 75–84, 1975.

[340] P. van Emde Boas. Preserving order in a forest in less than logarithmic time and linear space. *Information Processing Letters*, 6(3):80–82, 1977.

[341] P. van Emde Boas, R. Kaas, and E. Zijlstra. Design and implementation of an efficient priority queue. *Mathematical Systems Theory*, 10(1):99–127, 1976.

[342] Jan van Leeuwen, editor. *Handbook of Theoretical Computer Science, Volume A: Algorithms and Complexity*. Elsevier Science Publishers and the MIT Press, 1990.

[343] Charles Van Loan. *Computational Frameworks for the Fast Fourier Transform*. Society for Industrial and Applied Mathematics, 1992.

[344] Robert J. Vanderbei. *Linear Programming: Foundations and Extensions*. Kluwer Academic Publishers, 1996.

[345] Vijay V. Vazirani. *Approximation Algorithms*. Springer, 2001.

[346] Rakesh M. Verma. General techniques for analyzing recursive algorithms with applications. *SIAM Journal on Computing*, 26(2):568–581, 1997.

[347] Hao Wang and Bill Lin. Pipelined van Emde Boas tree: Algorithms, analysis, and applications. In *26th IEEE International Conference on Computer Communications*, pages 2471–2475, 2007.

[348] Antony F. Ware. Fast approximate Fourier transforms for irregularly spaced data. *SIAM Review*, 40(4):838–856, 1998.

[349] Stephen Warshall. A theorem on boolean matrices. *Journal of the ACM*, 9(1):11–12, 1962.

[350] Michael S. Waterman. *Introduction to Computational Biology, Maps, Sequences and Genomes*. Chapman & Hall, 1995.

[351] Mark Allen Weiss. *Data Structures and Problem Solving Using C++*. Addison-Wesley, second edition, 2000.

[352] Mark Allen Weiss. *Data Structures and Problem Solving Using Java*. Addison-Wesley, third edition, 2006.

[353] Mark Allen Weiss. *Data Structures and Algorithm Analysis in C++*. Addison-Wesley, third edition, 2007.

[354] Mark Allen Weiss. *Data Structures and Algorithm Analysis in Java*. Addison-Wesley, second edition, 2007.

[355] Hassler Whitney. On the abstract properties of linear dependence. *American Journal of Mathematics*, 57(3):509–533, 1935.

[356] Herbert S. Wilf. *Algorithms and Complexity*. A K Peters, second edition, 2002.

[357] J. W. J. Williams. Algorithm 232 (HEAPSORT). *Communications of the ACM*, 7(6):347–348, 1964.

[358] Shmuel Winograd. On the algebraic complexity of functions. In *Actes du Congrès International des Mathématiciens*, volume 3, pages 283–288, 1970.

[359] Andrew C.-C. Yao. A lower bound to finding convex hulls. *Journal of the ACM*, 28(4):780–787, 1981.

[360] Chee Yap. A real elementary approach to the master recurrence and generalizations. Unpublished manuscript. Available at http://cs.nyu.edu/yap/papers/, July 2008.

[361] Yinyu Ye. *Interior Point Algorithms: Theory and Analysis*. John Wiley & Sons, 1997.

[362] Daniel Zwillinger, editor. *CRC Standard Mathematical Tables and Formulae*. Chapman & Hall/CRC Press, 31st edition, 2003.