

Bibliography

- [1] S. G. Akl. *Parallel sorting algorithms*. Academic, Orlando, USA, 1985.
- [2] S. G. Akl. *The design and analysis of parallel algorithms*. Prentice Hall, Englewood, Cliffs, NJ, USA, 1989.
- [3] K. E. Batcher. Sorting networks and their applications, *Proc. of the AFIPS 1968 Spring Joint Computing Conference*, Volume 32, pages 307–314, 1968.
- [4] J.-C. Bermond and C. Peyrat. de Bruin and Kautz networks: a competitor for the hypercube? In F. André and J. P. Verjus, editors, *Hypercube and Distributed Computers*, Rennes, France, 1989, Elsevier Science Publishers B. V. (North-Holland), pages 279–293.
- [5] D. P. Bertsekas et al. Optimal communication algorithms for hypercubes. *Journal of Parallel and Distributed Computing*, 11:263–275, 1991.
- [6] D. P. Bertsekas and J. N. Tsitsiklis. *Parallel and distributed computation*. Prentice Hall, Englewood, Cliffs, NJ, USA, 1989.
- [7] S. N. Bhatt and I. C. F. Ipsen. How to embed trees in hypercubes. Technical Report YALEU/DCS/RR-443, Yale University, Dec. 1985.
- [8] S. N. Bhatt and S. S. Cosmadakis. The complexity of minim. wire lengths for VLSI layouts. *Inf. Proc. letters*, 25, 1987.
- [9] S. N. Bhatt, et al. Efficient embeddings of trees in hypercubes. *SIAM Journal on Computing*, 21(1):151–162, Feb. 1992.
- [10] S. N. Bhatt, et al. Optimal simulation by butterfly networks. *Proc. 20th Ann. ACM Theory of Computing Symp.*, 192–204, 1988.
- [11] M. Y. Chan. Embedding of grids into optimal hypercubes. *SIAM Journal on Computing*, 20(5):834–864, Oct. 1991.
- [12] T. F. Chan and Y. Saad. Multigrid algorithms on the hypercube multiprocessor. *IEEE Trans. on Computers*, C-35(11):969–977, Nov. 1986.
- [13] M.-S. Chen and K. G. Shin. Processor allocation in an n -cube multiprocessor using Gray codes. *IEEE Trans. on Computers*, C-36(12):1396–1407, Dec. 1987.
- [14] J. Dongarra et al. *HeNCE: A user's guide, Version 1.2*. Oak Ridge National Laboratory and University of Tennessee, 1993.
- [15] S. Dutt and J. P. Hayes. Subcube allocation in hypercube computers. *IEEE Trans. on Computers*, C-40(3):341–352, Mar. 1991.
- [16] A. Edelman. Optimal matrix transposition and bit reversal on hypercube: All-to-all personalized communication. *IEEE Trans. on Parallel and Distributed Systems*, 11(2):328–331, 1991.
- [17] K. Efe. Embedding mesh of trees in the hypercube. *Journal of Parallel and Distributed Computing*, 11:222–230, 1991.
- [18] J. A. Ellis. Embedding rectangular grids into square grids. *IEEE Trans. on Computers*, C-40(1):46–52, Jan. 1991.
- [19] M. J. Flynn. Very high-speed computing systems. *Proc. IEEE*, 54:1901–9, 1966.

- [20] A. Gibbons and W. Rytter. *Efficient parallel algorithms*. Cambridge University Press, 1988.
- [21] G. A. Geist et al. A machine-independent communication library. *Proc. of the Fourth Conference on Hypercubes*, 1989.
- [22] G. A. Geist and V. S. Sunderam. Network-based concurrent computing on the PVM system. Technical Report of ORNL, 1993.
- [23] I. Havel. On Hamiltonian circuits and spanning trees of hypercubes. *Časopis pro pěstování matematiky*, 109:135–152, 1984.
- [24] I. Havel and P. Liebl. Embedding the dichotomic tree into the cube. *Časopis pro pěstování matematiky*, 97:201–205, 1972.
- [25] I. Havel and P. Liebl. Embedding the polytomic tree into the n -cube. *Časopis pro pěstování matematiky*, 98:307–314, 1973.
- [26] I. Havel and P. Liebl. One-legged caterpillars span hypercubes. *Journal of Graph Theory*, 10:69–77, 1986.
- [27] W. D. Hillis. *The Connection Machine*. MIT Press, Cambridge USA, 1985. Also: Grada, Praha, 1993. In Czech.
- [28] J. Hlavíčka. *Computer Architecture* (Architektura počítačů). Lecture Notes, to be published by CTU, Prague. In Czech.
- [29] G. Kahn et al. *Covering trees and broadcasting in de Bruin graphs*. Research report, Concordia University.
- [30] Kendall Square Research. *KSR1 technical summary* KSR corporation, 1992.
- [31] J. Kim, C. R. Das, and W. Lin. A top-down processor allocation scheme for hypercube computers. *IEEE Trans. on Parallel and Distributed Systems*, 2(1):20–30, Jan. 1991.
- [32] D. E. Knuth. *The art of computer programming*, Volume 3. *Sorting and searching* Addison Wesley, USA, 1973.
- [33] D. W. Krumme et al. Hypercube embedding is NP-complete. *Proc. of Hypercube Conf.*, SIAM, Knoxville, Tennessee, Sept. 1985.
- [34] F. T. Leighton. *Introduction to parallel algorithms and architectures: Arrays, trees, hypercubes*. Morgan Kaufmann Publ., San Mateo, Calif., USA, 1992.
- [35] A. Lenstra and M. Manasse. The number field sieve. *Proc. Symp. on the Theory of Computing*, May 1992.
- [36] H. Liu and S.-H. Huang. Dilation-6 embeddings of 3-dimensional grids into optimal hypercubes. *Proc. of 1991 Int. Conf. on Parallel Processing*, pages III-250–254, IEEE CS Press, USA, 1991.
- [37] R. Miller and Q. F. Stout. Simulating essential pyramids. *IEEE Trans. on Computers*, C-37(12):1642–1648, Dec. 1988.
- [38] B. Monien. The problem of embedding trees into binary trees is NP-complete. In *FTC'85*. Springer-Verlag, LNCS 199, 1985, pages 300–309.
- [39] B. Monien and H. Sudborough. Embedding one interconnection network in another. *Computing Supplements*, 7:257–282, 1990.
- [40] L. Nebeský. On cubes and dichotomic trees. *Časopis pro pěstování matematiky*, 99:164–167, 1974.
- [41] F. P. Preparata and J. Vuillemin. The cube-connected cycles: A versatile network for parallel computation. *IEEE Trans. on Computers*, C-24(5):300–310, May 1981.
- [42] Y. Saad and M. H. Schultz. Topological properties of hypercubes. *IEEE Trans. on Computers*, C-37(7):867–872, 1988.

- [43] C. Schnorr and A. Shamir. An optimal sorting algorithm for mesh connected computers. In *Proc. of the 18th Ann. ACM Symposium on Theory of Computing*, pages 255–263, 1986.
- [44] M. Sekanina. On an ordering of a set of vertices of a connected graph. *Publications of Faculty of Sciences*, Univ. of Brno, 412(137–142), 1960.
- [45] H. J. Siegel. *Interconnection networks for large-scal parallel processing*. McGraw-Hill, New York, 1990.
- [46] Thinking Machines Corp. *CM5 Technical summary*. TMC, Cambridge, Mass. USA, 1992.
- [47] P. Tvrdík. On Hamiltonian circuits, paths, and spanning trees of hypercubes. In D. J. Evans, editor, *Parallel Computing 89*, pages 293–298, Leiden, Aug. 1989. North-Holland, Amsterdam, 1990.
- [48] P. Tvrdík. On incomplete hypercubes. In L. Bougé, et al. editors, *Parallel Processing: CONPAR '92 – VAPP 5*, pages 13–25, Springer Verlag, LNCS 634, 1992.
- [49] P. Tvrdík. *Trends in architectures of microprocessors systems*. Lecture Notes, CTU, Prague, 1987. In Czech.
- [50] P. Tvrdík, editor. *Int. Summer Institute on Parallel Architectures, Languages, and Algorithms*. Draft of Papers. Czech Technical University, Prague, July 1993.
- [51] L. W. Tucker and G. G. Robertson. Architecture and applications of the Connection Machine. *Computer*, ?(8):26–38, Aug. 1988.
- [52] J. D. Ullman. *Computational aspects of VLSI*. Computer Science Press, Rockville, Maryland, USA, 1984.
- [53] A. S. Wagner. *Embedding trees in the hypercube*. PhD dissertation, University of Toronto, 1987.
- [54] M. Yoeli. Binary ring sequences. *Amer. Math. Monthly*, 69:952–855, 1962.