Bibliography

[1] Global solutions. http://www.mscs.mu.edu/~globsol/.

[2] Interval computations. http://cs.utep.edu/interval-comp/icompwww.html.

[3] M. Aboelaze, N. Chrisochoides, and E. Houstis. The Parallelization of Level 2 and 3 BLAS Operations on Distributed Memory Machines. Technical Report CSD-TR-91-007, Purdue University, West Lafayette, IN, 1991.

[4] R. Agarwal, S. Balle, F. Gustavson, M. Joshi, and P. Palkar. A Three-Dimensional Approach to Parallel Matrix Multiplication. *IBM Journal of Research and Development*, 39(5):575–582, 1995.

[5] R. Agarwal, F. Gustavson, and M. Zubair. A High Performance Matrix Multiplication Algorithm on a Distributed-Memory Parallel Computer, Using Overlapped Communication. *IBM Journal of Research and Development*, 38(6):673–681, 1994.

[6] E. Anderson, Z. Bai, C. Bischof, S. Blackford, J. Demmel, J. Dongarra, J. Du Croz, A. Greenbaum, S. Hammarling, A. McKenney, and D. Sorensen. *LAPACK Users' Guide*. SIAM, Philadelphia, PA, USA, third edition, 1999. (Also available in Japanese, published by Maruzen, Tokyo, translated by Dr Oguni).

[7] ANSI/IEEE, New York. *IEEE Standard for Binary Floating Point Arithmetic*, Std 754-1985 edition, 1985.

[8] P. Bangalore. The Data-Distribution-Independent Approach to Scalable Parallel Libraries. Master's thesis, Mississippi State University, 1995.

[9] D. Bindel, J. Demmel, W. Kahan, and O. Marques. On computing givens rotations reliably and efficiently. LAPACK Working Note No.148. Technical Report CS-00-449, Department of Computer Science, University of Tennessee, 1122 Volunteer Boulevard, Knoxville, TN 37996-3450, USA, 2000. URL: http://www.netlib.org/lapack/lawns/.

[10] R. Bisseling and J. van der Vorst. Parallel Triangular System Solving on a mesh network of Transputers. *SIAM Journal on Scientific and Statistical Computing*, 12:787–799, 1991.

[11] L. Blackford, J. Choi, A. Cleary, E. D'Azevedo, J. Demmel, I. Dhillon, J. Dongarra, S. Hammarling, G. Henry, A. Petitet, K. Stanley, D. Walker, and R. C. Whaley. *ScaLAPACK Users' Guide*. SIAM, Philadelphia, PA, 1997.

[12] G. Bohlender. Literature list on enclosure methods and related topics. http://ma70.rz.uni-karlsruhe.de/~ae15/litlist.html.

[13] R. Brent and P. Strazdins. Implementation of BLAS Level 3 and LINPACK Benchmark on the AP1000. *Fujitsu Scientific and Technical Journal*, 5(1):61–70, 1993.

[14] D. Chiriaev and G. W. Walster. Interval arithmetic specification. http://www.mscs.mu.edu/~globsol/walster-papers.html.

[15] J. Choi, J. Dongarra, S. Ostrouchov, A. Petitet, D. Walker, and R. C. Whaley. A Proposal for a Set of Parallel Basic Linear Algebra Subprograms. In J. Dongarra, K. Masden, and J. Waśniewski, editors, *Applied Parallel Computing*, pages 107–114. Springer Verlag, 1995. (also LAPACK Working Note No.100).

[16] J. Choi, J. Dongarra, and D. Walker. PUMMA: Parallel Universal Matrix Multiplication Algorithms on Distributed Memory Concurrent Computers. *Concurrency: Practice and Experience*, 6(7):543–570, 1994. (also LAPACK Working Note No.57).

[17] J. Choi, J. Dongarra, and D. Walker. PB-BLAS: A Set of Parallel Block Basic Linear Algebra Subroutines. *Concurrency: Practice and Experience*, 8(7):517–535, 1996.

[18] A. Chtchelkanova, J. Gunnels, G. Morrow, J. Overfelt, and R. van de Geijn. Parallel Implementation of BLAS: General Techniques for Level 3 BLAS. Technical Report TR95-49, Department of Computer Sciences, UT-Austin, 1995. Submitted to Concurrency: Practice and Experience.

[19] J. Demmel. *Applied Numerical Linear Algebra*. SIAM, 1997.

[20] D. S. Dodson. Corrigendum: Remark on "Algorithm 539: Basic Linear Algebra Subroutines for FORTRAN usage". *ACM Trans. Math. Software*, 9:140, 1983. (See also [39] and [21]).

[21] D. S. Dodson and R. G. Grimes. Remark on algorithm 539: Basic Linear Algebra Subprograms for Fortran usage. *ACM Trans. Math. Software*, 8:403–404, 1982. (See also [39] and [20]).

[22] D. S. Dodson, R. G. Grimes, and J. G. Lewis. Sparse extensions to the FORTRAN Basic Linear Algebra Subprograms. *ACM Trans. Math. Software*, 17:253–272, 1991. (Algorithm 692).

[23] J. J. Dongarra, J. R. Bunch, C. B. Moler, and G. W. Stewart. *LINPACK Users' Guide*. Society for Industrial and Applied Mathematics, Philadelphia, PA, 1979.

[24] J. J. Dongarra, J. Du Croz, I. S. Duff, and S. Hammarling. A proposal for a set of Level 3 Basic Linear Algebra Subprograms. In G. Rodrigue, editor, *Parallel Processing for Scientific Computing*, pages 40–44. SIAM, Philadelphia, PA, USA, 1989. (Proceedings of the Third SIAM Conference).

[25] J. J. Dongarra, J. Du Croz, I. S. Duff, and S. Hammarling. A set of Level 3 Basic Linear Algebra Subprograms. *ACM Trans. Math. Software*, 16:1–28, 1990. (Algorithm 679).

[26] J. J. Dongarra, J. Du Croz, S. Hammarling, and R. J. Hanson. An extended set of FORTRAN Basic Linear Algebra Subprograms. *ACM Trans. Math. Software*, 14:1–32, 399, 1988. (Algorithm 656).

[27] I. S. Duff, M. Marrone, G. Radicati, and C. Vittoli. Level 3 Basic Linear Algebra Subprograms for sparse matrics: A user-level interface. *ACM Trans. Math. Software*, 23:379–401, 1997.

[28] A. Elster. Basic Matrix Subprograms for Distributed Memory Systems. In D. Walker and Q. Stout, editors, *Proceedings of the Fifth Distributed Memory Computing Conference*, pages 311–316. IEEE Press, 1990.

[29] R. Falgout, A. Skjellum, S. Smith, and C. Still. The Multicomputer Toolbox Approach to Concurrent BLAS and LACS. In *Proceedings of the Scalable High Performance Computing Conference SHPCC-92*. IEEE Computer Society Press, 1992.

[30] Message Passing Interface Forum. MPI: A Message Passing Interface Standard. *International Journal of Supercomputer Applications and High Performance Computing*, 8(3–4), 1994.

[31] G. Fox, S. Otto, and A. Hey. Matrix Algorithms on a Hypercube I: Matrix Multiplication. *Parallel Computing*, 3:17–31, 1987.

[32] B. S. Garbow, J. M. Boyle, J. J. Dongarra, and C. B. Moler. *Matrix Eigensystem Routines – EISPACK Guide Extension*, volume 51 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, 1977.

[33] G. Golub and C. van Loan. *Matrix Computations*. Johns-Hopkins, Baltimore, third edition, 1996.

[34] M. Heath and C. Romine. Parallel Solution Triangular Systems on Distributed Memory Multiprocessors. *SIAM Journal on Scientific and Statistical Computing*, 9:558–588, 1988.

[35] N. J. Higham. *Accuracy and Stability of Numerical Algorithms*. SIAM, Philadelphia, PA, 1996.

[36] S. Huss-Lederman, E. Jacobson, A. Tsao, and G. Zhang. Matrix Multiplication on the Intel Touchstone DELTA. *Concurrency: Practice and Experience*, 6(7):571–594, 1994.

[37] IEEE. *ANSI/IEEE Standard for Binary Floating Point Arithmetic: Std 754-1985*. IEEE Press, New York, NY, USA, 1985.

[38] ISO/IEC. *C9X FCD Standard (Draft)*, x3j11/98-049, wg14/n843 edition, 1998. http://http://wwwold.dkuug.dk/JTC1/SC22/WG14/.

[39] C. L. Lawson, R. J. Hanson, D. Kincaid, and F. T. Krogh. Basic Linear Algebra Subprograms for FORTRAN usage. *ACM Trans. Math. Software*, 5:308–323, 1979. (Algorithm 539. See also [21] and [20]).

[40] G. Li and T. Coleman. A Parallel Triangular Solver for a Distributed-Memory Multiprocessor. *SIAM Journal on Scientific and Statistical Computing*, 9(3):485–502, 1988.

[41] G. Li and T. Coleman. A New Method for Solving Triangular Systems on Distributed-Memory Message-Passing Multiprocessor. *SIAM Journal on Scientific and Statistical Computing*, 10(2):382–396, 1989.

[42] X. Li, J. Demmel, D. Bailey, G. Henry, Y. Hida, J. Iskandar, W. Kahan, A. Kapur, M. Martin, T. Tung, and D. Yoo. Design, implementation and testing of extended and mixed precision blas. Technical Report CS-00-451, Department of Computer Science, University of Tennessee, 1122 Volunteer Boulevard, Knoxville, TN 37996-3450, USA, 2000. URL: http://www.netlib.org/lapack/lawns/.

[43] W. Lichtenstein and S. L. Johnsson. Block-Cyclic Dense Linear Algebra. *SIAM Journal on Scientific and Statistical Computing*, 14(6):1259–1288, 1993.

[44] K. Mathur and S. L. Johnsson. Multiplication of Matrices of Arbitrary Shapes on a Data Parallel Computer. *Parallel Computing*, 20:919–951, 1994.

[45] O. McBryan and E. van de Velde. Matrix and Vector Operations on Hypercube Parallel Processors. *Parallel Computing*, 5:117–126, 1987.

[46] D. Priest. Algorithms for arbitrary precision floating point arithmetic. In P. Kornerup and D. Matula, editors, *Proceedings of the 10th Symposium on Computer Arithmetic*, pages 132–145, Grenoble, France, June 26-28 1991. IEEE Computer Society Press.

[47] Jonathan Richard Shewchuk. Adaptive Precision Floating-Point Arithmetic and Fast Robust Geometric Predicates. Technical Report CMU-CS-96-140, School of Computer Science, Carnegie Mellon University, Pittsburgh, Pennsylvania, May 1996. to appear in Discrete & Computational Geometry.

[48] B. T. Smith, J. M. Boyle, J. J. Dongarra, B. S. Garbow, Y. Ikebe, V. C. Klema, and C. B. Moler. *Matrix Eigensystem Routines – EISPACK Guide*, volume 6 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, 1976.

[49] P. Strazdins. A High Performance, Portable Distributed BLAS Implementation. In *Proceedings of the Sixth Parallel Computing Workshop*, Fujitsu Parallel Computing Center, 1996.

[50] Thinking Machines Corporation. *CMSSL for Fortran*, 1990.

[51] R. van de Geijn. *Using PLAPACK: Parallel Linear Algebra Package*. The MIT Press, Cambridge, Massachusetts, 1997.

[52] R. van de Geijn and J. Watts. SUMMA: Scalable Universal Matrix Multiplication Algorithm. Technical Report UT CS-95-286, LAPACK Working Note No.96, University of Tennessee, 1995.