

# Bibliography `matlab-guide-3ed`

Desmond J. Higham\*      Nicholas J. Higham†

November 22, 2016

This is the bibliography of the book

Desmond J. Higham and Nicholas J. Higham. *MATLAB Guide*. Third edition, Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 2017. xxvi+476 pp. ISBN 978-1-61197-465-2.

Blue denotes clickable links.

## References

- [1] Forman S. Acton. *Numerical Methods That Work*. Harper and Row, New York, 1970. xviii+541 pp. Reprinted by Mathematical Association of America, Washington, D.C., with new preface and additional problems, 1990. ISBN 0-88385-450-3.
- [2] Yair Altman. *Accelerating MATLAB Performance. 1101 Tips to Speed up MATLAB Programs*. CRC Press, Boca Raton, FL, USA, 2015. xxv+743 pp. ISBN 978-1-4822-1129-0.
- [3] E. Anderson, Z. Bai, C. H. Bischof, S. Blackford, J. W. Demmel, J. J. Dongarra, J. J. Du Croz, A. Greenbaum, S. J. Hammarling, A. McKenney, and D. C. Sorensen. *LAPACK Users' Guide*. Third edition, Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 1999. xxvi+407 pp. ISBN 0-89871-447-8.

---

\*Department of Mathematics and Statistics, The University of Strathclyde, Glasgow, G1 1XH ([d.j.higham@strath.ac.uk](mailto:d.j.higham@strath.ac.uk), <http://personal.strath.ac.uk/d.j.higham/>)

†School of Mathematics, University of Manchester, Manchester, M13 9PL, UK ([nick.higham@manchester.ac.uk](mailto:nick.higham@manchester.ac.uk), <http://www.maths.manchester.ac.uk/~higham>)

- [4] Mary Aprahamian and Nicholas J. Higham. [Matrix inverse trigonometric and inverse hyperbolic functions: Theory and algorithms](#). *SIAM J. Matrix Anal. Appl.*, 37(4):1453–1477, 2016.
- [5] Uri M. Ascher and Linda R. Petzold. *Computer Methods for Ordinary Differential Equations and Differential-Algebraic Equations*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 1998. xvii+314 pp. ISBN 0-89871-412-5.
- [6] Russell Ash. *The Top 10 of Everything*. Dorland Kindersley, London, 1994. 288 pp. ISBN 0-7513-0137-X.
- [7] Kendall E. Atkinson. *An Introduction to Numerical Analysis*. Second edition, Wiley, New York, 1989. xvi+693 pp. ISBN 0-471-50023-2.
- [8] Zhaojun Bai, James W. Demmel, Jack J. Dongarra, Axel Ruhe, and Henk A. Van der Vorst, editors. [Templates for the Solution of Algebraic Eigenvalue Problems: A Practical Guide](#). Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 2000. xxix+410 pp. ISBN 0-89871-471-0.
- [9] Richard Barrett, Michael Berry, Tony F. Chan, James Demmel, June Donato, Jack Dongarra, Victor Eijkhout, Roldan Pozo, Charles Romine, and Henk Van der Vorst. *Templates for the Solution of Linear Systems: Building Blocks for Iterative Methods*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 1994. xiii+112 pp. ISBN 0-89871-328-5.
- [10] Jon L. Bentley. *Programming Pearls*. Addison-Wesley, Reading, MA, USA, 1986. viii+195 pp. ISBN 0-201-10331-1.
- [11] Jon L. Bentley. *More Programming Pearls: Confessions of a Coder*. Addison-Wesley, Reading, MA, USA, 1988. viii+207 pp. ISBN 0-201-11889-0.
- [12] David Borland and Russell M. Taylor II. [Rainbow color map \(still\) considered harmful](#). *IEEE Computer Graphics and Applications*, 27(2):14–17, 2007.
- [13] Folkmar Bornemann, Dirk Laurie, Stan Wagon, and Jörg Waldvogel. *The SIAM 100-Digit Challenge: A Study in High-Accuracy Numerical*

*Computing*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 2004. xi+306 pp. ISBN 0-89871-561-X.

- [14] K. E. Brenan, S. L. Campbell, and L. R. Petzold. *Numerical Solution of Initial-Value Problems in Differential-Algebraic Equations*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 1996. x+256 pp. Corrected republication of work first published in 1989 by North-Holland, New York. ISBN 0-89871-353-6.
- [15] David S. Broomhead. [Applications of max-plus algebra](#). In [84], pages 795–800.
- [16] A. Buchheim. [On the theory of matrices](#). *Proc. London Math. Soc.*, 16:63–82, 1884.
- [17] Andrew R. Conn, Katya Scheinberg, and Luis N. Vicente. *Introduction to Derivative-Free Optimization*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 2009. xii+277 pp. ISBN 978-0-898716-68-9.
- [18] James W. Cooley. How the FFT gained acceptance. In *A History of Scientific Computing*, Stephen G. Nash, editor, Addison-Wesley, Reading, MA, USA, 1990, pages 133–140.
- [19] James W. Cooley and John W. Tukey. [An algorithm for the machine calculation of complex Fourier series](#). *Math. Comp.*, 19(90):297–301, 1965.
- [20] Robert M. Corless. *Essential Maple 7: An Introduction for Scientific Programmers*. Springer-Verlag, New York, 2002. xv+282 pp. ISBN 0-387-95352-3.
- [21] Robert M. Corless and Nicolas Fillion. [A Graduate Introduction to Numerical Methods From the Viewpoint of Backward Error Analysis](#). Springer-Verlag, London, 2013. xxxix+868 pp. ISBN 978-1-4614-8452-3.
- [22] Tony Crilly. The appearance of set operators in Cayley’s group theory. *Notices of the South African Mathematical Society*, 31:9–22, 2000.

- [23] Germund Dahlquist and Åke Björck. *Numerical Methods*. Prentice-Hall, Englewood Cliffs, NJ, USA, 1974. xviii+573 pp. Translated by Ned Anderson. ISBN 0-13-627315-7.
- [24] Harold T. Davis. *Introduction to Nonlinear Differential and Integral Equations*. Dover, New York, 1962. xv+566 pp. ISBN 0-486-60971-5.
- [25] Timothy A. Davis. SuiteSparse: A suite of sparse matrix software. <http://faculty.cse.tamu.edu/davis/suitesparse.html>.
- [26] Timothy A. Davis. [Algorithm 832: UMFPACK V4.3—An unsymmetric-pattern multifrontal method](#). *ACM Trans. Math. Software*, 30(2):196–199, 2004.
- [27] Timothy A. Davis. *Direct Methods for Sparse Linear Systems*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 2006. xii+217 pp. ISBN 0-89871-613-6.
- [28] Timothy A. Davis. [Algorithm 930: FACTORIZE: An object-oriented linear system solver for MATLAB](#). *ACM Trans. Math. Software*, 39(4):28:1–28:18, 2013.
- [29] Timothy A. Davis, Sivasankaran Rajamanickam, and Wissam M. Sid-Lakhdar. [A survey of direct methods for sparse linear systems](#). *Acta Numerica*, 25:383–566, 2016.
- [30] Edvin Deadman and Nicholas J. Higham. [Testing matrix function algorithms using identities](#). *ACM Trans. Math. Software*, 42(1):4:1–4:15, 2016.
- [31] James W. Demmel. *Applied Numerical Linear Algebra*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 1997. xi+419 pp. ISBN 0-89871-389-7.
- [32] James W. Demmel, Jack Dongarra, Victor Eijkhout, Erika Fuentes, Antoine Petit, Richard Vuduc, R. Clint Whaley, and Katherine Yellick. [Self-adapting linear algebra algorithms and software](#). *Proc. IEEE*, 93(2):293–312, 2005.
- [33] Edsger W. Dijkstra. On the cruelty of really teaching computing science. <https://www.cs.utexas.edu/users/EWD/transcriptions/EWD10xx/EWD1036.html>, December 1998.

- [34] Nicholas J. Dingle and Nicholas J. Higham. [Reducing the influence of tiny normwise relative errors on performance profiles](#). *ACM Trans. Math. Software*, 39(4):24:1–24:11, 2013.
- [35] Elizabeth D. Dolan and Jorge J. Moré. [Benchmarking optimization software with performance profiles](#). *Math. Programming*, 91:201–213, 2002.
- [36] Jack J. Dongarra and Francis Sullivan. Introduction to the top 10 algorithms. *Computing in Science and Engineering*, 2(1):22–23, 2000.
- [37] David L. Donoho and Victoria Stodden. [Reproducible research in the mathematical sciences](#). In [84], pages 916–925.
- [38] Tobin A. Driscoll, Nicholas Hale, and Lloyd N. Trefethen. *Chebfun Guide*. Pafnuty Publications, Oxford, 2014.
- [39] I. S. Duff, A. M. Erisman, and J. K. Reid. *Direct Methods for Sparse Matrices*. Oxford University Press, 1986. xiii+341 pp. ISBN 0-19-853408-6.
- [40] Iain S. Duff. [MA57—A code for the solution of sparse symmetric definite and indefinite systems](#). *ACM Trans. Math. Software*, 30(2):118–144, 2004.
- [41] Steven L. Eddins. Automated software testing for MATLAB. *Computing in Science and Engineering*, 11(6):48–54, 2009.
- [42] Steven L. Eddins. Rainbow color map critiques: An overview and annotated bibliography. <http://mathworks.com/company/newsletters/articles/rainbow-color-map-critiques-an-overview-and-annotated-bibliography.html>, 2014.
- [43] Alan Edelman. Eigenvalue roulette and random test matrices. In *Linear Algebra for Large Scale and Real-Time Applications*, Marc S. Moonen, Gene H. Golub, and Bart L. De Moor, editors, volume 232 of *NATO ASI Series E*, Kluwer Academic Publishers, Dordrecht, The Netherlands, 1993, pages 365–368.

- [44] Alan Edelman, Eric Kostlan, and Michael Shub. How many eigenvalues of a random matrix are real? *J. Amer. Math. Soc.*, 7(1):247–267, 1994.
- [45] Mark Embree and Lloyd N. Trefethen. Growth and decay of random Fibonacci sequences. *Proc. Roy. Soc. London Ser. A*, 455:2471–2485, 1999.
- [46] Bengt Fornberg. *A Practical Guide to Pseudospectral Methods*. Cambridge University Press, Cambridge, UK, 1995. x+231 pp. ISBN 0-521-49582-2.
- [47] George E. Forsythe, Michael A. Malcolm, and Cleve B. Moler. *Computer Methods for Mathematical Computations*. Prentice-Hall, Englewood Cliffs, NJ, USA, 1977. xi+259 pp. ISBN 0-13-165332-6.
- [48] Linton C. Freeman. [Going the wrong way down a one-way street: Centrality in physics and biology](#). *J. Social Structure*, 9, 2008.
- [49] Matteo Frigo and Steven G. Johnson. FFTW. <http://www.fftw.org/>.
- [50] C. W. Gear and R. D. Skeel. The development of ODE methods: A symbiosis between hardware and numerical analysis. In *A History of Scientific Computing*, Stephen G. Nash, editor, Addison-Wesley, Reading, MA, USA, 1990, pages 88–105.
- [51] Stuart Geman. The spectral radius of large random matrices. *Ann. Probab.*, 14(4):1318–1328, 1986.
- [52] John R. Gilbert, Cleve B. Moler, and Robert S. Schreiber. Sparse matrices in MATLAB: Design and implementation. *SIAM J. Matrix Anal. Appl.*, 13(1):333–356, 1992.
- [53] Gene H. Golub and Charles F. Van Loan. *Matrix Computations*. Fourth edition, Johns Hopkins University Press, Baltimore, MD, USA, 2013. xxi+756 pp. ISBN 978-1-4214-0794-4.
- [54] Anne Greenbaum. *Iterative Methods for Solving Linear Systems*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 1997. xiii+220 pp. ISBN 0-89871-396-X.

- [55] David F. Griffiths, John W. Dold, and David J. Silvester. *Essential Partial Differential Equations: Analytical and Computational Aspects*. Springer-Verlag, London, 2015. xi+368 pp. ISBN 978-3-319-22568-5.
- [56] David F. Griffiths and Desmond J. Higham. *Numerical Methods for Ordinary Differential Equations*. Springer-Verlag, London, 2010. x+271 pp. ISBN 978-0-85729-147-9.
- [57] David F. Griffiths and Desmond J. Higham. *Learning L<sup>A</sup>T<sub>E</sub>X*. Second edition, Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 2016. x+103 pp. ISBN 978-1-611974-41-6.
- [58] Peter Grindrod. *Mathematical Underpinnings of Analytics. Theory and Applications*. Oxford University Press, New York, 2015. xiii+261 pp. ISBN 978-0-19-872509-1.
- [59] Ned Gulley. [In praise of tweaking: A wiki-like programming contest](#). *Interactions*, 11(3):18–23, 2004.
- [60] E. Hairer and G. Wanner. *Analysis by Its History*. Springer-Verlag, New York, 1996. x+374 pp. ISBN 0-387-94551-2.
- [61] E. Hairer and G. Wanner. *Solving Ordinary Differential Equations II: Stiff and Differential-Algebraic Problems*. Second edition, Springer-Verlag, Berlin, 1996. xv+614 pp. ISBN 3-540-60452-9.
- [62] Leonard Montague Harrod, editor. *Indexers on Indexing: A Selection of Articles Published in The Indexer*. R. K. Bowker, London, 1978. x+430 pp. ISBN 0-8352-1099-5.
- [63] Bernd Heidergott, Geert Jan Olsder, and Jacob van der Woude. *Max Plus at Work. Modeling and Analysis of Synchronized Systems: A Course on Max-Plus Algebra and Its Applications*. Princeton University Press, Princeton, NJ, USA, 2006. xi+213 pp. ISBN 978-0-691-11763-8.
- [64] Piet Hein. *Grooks*. Number 85 in *Borgens Pocketbooks*. Second edition, Borgens Forlag, Copenhagen, Denmark, 1992. 53 pp. First published in 1966. ISBN 87-418-1079-1.
- [65] Kurt Hensel. Über den Zusammenhang zwischen den Systemen und ihren Determinanten. *J. Reine Angew. Math.*, 159(4):246–254, 1928.

- [66] Desmond J. Higham. [Nine ways to implement the binomial method for option valuation in MATLAB](#). *SIAM Rev.*, 44(4):661–677, 2002.
- [67] Desmond J. Higham. *An Introduction to Financial Option Valuation: Mathematics, Stochastics and Computation*. Cambridge University Press, Cambridge, UK, 2004. xxi+273 pp. ISBN 0-521-83884-3.
- [68] Desmond J. Higham and Nicholas J. Higham. *MATLAB Guide*. Third edition, Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 2017. xxvi+476 pp. ISBN 978-1-61197-465-2.
- [69] Nicholas J. Higham. [Algorithm 694: A collection of test matrices in MATLAB](#). *ACM Trans. Math. Software*, 17(3):289–305, 1991.
- [70] Nicholas J. Higham. [The Test Matrix Toolbox for MATLAB \(version 3.0\)](#). Numerical Analysis Report No. 276, Manchester Centre for Computational Mathematics, Manchester, England, September 1995. 70 pp.
- [71] Nicholas J. Higham. *Accuracy and Stability of Numerical Algorithms*. Second edition, Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 2002. xxx+680 pp. ISBN 0-89871-521-0.
- [72] Nicholas J. Higham. *Functions of Matrices: Theory and Computation*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 2008. xx+425 pp. ISBN 978-0-898716-46-7.
- [73] Nicholas J. Higham. Sylvester’s influence on applied mathematics. *Mathematics Today*, 50(4):202–206, 2014.
- [74] Nicholas J. Higham. [Color spaces and digital imaging](#). In [84], pages 808–813.
- [75] Nicholas J. Higham. [Functions of matrices](#). In [84], pages 97–99.
- [76] Nicholas J. Higham. [Numerical linear algebra and matrix analysis](#). In [84], pages 263–281.
- [77] Nicholas J. Higham. [Programming languages: An applied mathematics view](#). In [84], pages 828–839.



- [78] Nicholas J. Higham. [The singular value decomposition](#). In [84], pages 126–127.
- [79] Nicholas J. Higham. Iterating MATLAB commands. <https://nickhigham.wordpress.com/2016/05/13/iterating-matlab-commands>, May 2016.
- [80] Nicholas J. Higham. The one-line maze program in MATLAB. <https://nickhigham.wordpress.com/2016/06/29/the-one-line-maze-program-in-matlab>, June 2016.
- [81] Nicholas J. Higham. The top 10 algorithms in applied mathematics. <https://nickhigham.wordpress.com/2016/03/29/the-top-10-algorithms-in-applied-mathematics>, March 2016.
- [82] Nicholas J. Higham and Awad H. Al-Mohy. [Computing matrix functions](#). *Acta Numerica*, 19:159–208, 2010.
- [83] Nicholas J. Higham and Edvin Deadman. [A catalogue of software for matrix functions. Version 2.0](#). MIMS EPrint 2016.3, Manchester Institute for Mathematical Sciences, The University of Manchester, UK, January 2016. 22 pp. Updated March 2016.
- [84] Nicholas J. Higham, Mark R. Dennis, Paul Glendinning, Paul A. Martin, Fadil Santosa, and Jared Tanner, editors. [The Princeton Companion to Applied Mathematics](#). Princeton University Press, Princeton, NJ, USA, 2015. xvii + 994 + 16 color plates pp. ISBN 978-0-691-15039-0.
- [85] Nicholas J. Higham and Françoise Tisseur. [A block algorithm for matrix 1-norm estimation, with an application to 1-norm pseudospectra](#). *SIAM J. Matrix Anal. Appl.*, 21(4):1185–1201, 2000.
- [86] Francis B. Hildebrand. *Advanced Calculus for Applications*. Second edition, Prentice-Hall, Englewood Cliffs, NJ, USA, 1976. xiii+733 pp. ISBN 0-13-011189-9.
- [87] Doug Hoyte. *Let Over Lambda. 50 Years of Lisp*. <http://letoverlambda.com>, 2008. iv+376 pp. ISBN 978-1-4357-1275-1.
- [88] *IEEE Standard for Binary Floating-Point Arithmetic, ANSI/IEEE Standard 754-1985*. Institute of Electrical and Electronics Engineers, New York, 1985. Reprinted in SIGPLAN Notices, 22(2):9–25, 1987.

- [89] *IEEE Standard for Floating-Point Arithmetic, IEEE Std 754-2008 (revision of IEEE Std 754-1985)*. IEEE Computer Society, New York, 2008. 58 pp. ISBN 978-0-7381-5752-8.
- [90] D. S. Jones and B. D. Sleeman. *Differential Equations and Mathematical Biology*. CRC Press, Boca Raton, FL, USA, 2003. 408 pp. ISBN 1-58488-296-4.
- [91] William M. Kahan. Handheld calculator evaluates integrals. *Hewlett-Packard Journal*, 31(8):23–32, 1980.
- [92] David K. Kahaner, Cleve B. Moler, and Stephen G. Nash. *Numerical Methods and Software*. Prentice-Hall, Englewood Cliffs, NJ, USA, 1989. xii+495 pp. ISBN 0-13-627258-4.
- [93] Irving Kaplansky. Reminiscences. In *Paul Halmos: Celebrating 50 Years of Mathematics*, John H. Ewing and F. W. Gehring, editors, Springer-Verlag, Berlin, 1991, pages 87–89.
- [94] Roger Emanuel Kaufman. *A FORTRAN Coloring Book*. The MIT Press, Cambridge, MA, USA, 1978. ISBN 0-262-61026-4.
- [95] C. T. Kelley. *Iterative Methods for Linear and Nonlinear Equations*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 1995. xiii+165 pp. ISBN 0-89871-352-8.
- [96] C. T. Kelley. *Iterative Methods for Optimization*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 1999. xv+180 pp. ISBN 0-89871-433-8.
- [97] C. T. Kelley. *Solving Nonlinear Equations with Newton’s Method*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 2003. xiii+104 pp. ISBN 0-89871-546-6.
- [98] Brian W. Kernighan and P. J. Plauger. *The Elements of Programming Style*. Second edition, McGraw-Hill, New York, 1978. xii+168 pp. ISBN 0-07-034207-5.
- [99] Jacek Kierzenka. Tutorial on solving BVPs with BVP4C, 2016. <https://mathworks.com/matlabcentral/fileexchange/3819-tutorial-on-solving-bvps-with-bvp4c>.

- [100] Jacek Kierzenka. Tutorial on solving DDEs with DDE23, 2016. <http://mathworks.com/matlabcentral/fileexchange/3899-tutorial-on-solving-ddes-with-dde23>.
- [101] Jacek A. Kierzenka and Lawrence F. Shampine. A BVP solver based on residual control and the MATLAB PSE. *ACM Trans. Math. Software*, 27(3):229–316, 2001.
- [102] Peter E. Kloeden and Eckhard Platen. *Numerical Solution of Stochastic Differential Equations*. Springer-Verlag, Berlin, 1992. xxxv+632 pp. ISBN 3-540-54062-8.
- [103] G. Norman Knight. Book indexing in Great Britain: A brief history. *The Indexer*, 6(1):14–18, 1968. Reprinted in [62, pp. 9–13].
- [104] Donald E. Knuth. [Structured programming with go to statements](#). *Computing Surveys*, 6(4):261–301, 1974. Reprinted in [106].
- [105] Donald E. Knuth. *The T<sub>E</sub>Xbook*. Addison-Wesley, Reading, MA, USA, 1986. ix+483 pp. ISBN 0-201-13448-9.
- [106] Donald E. Knuth. *Literate Programming*. CSLI Lecture Notes Number 27. Center for the Study of Language and Information, Stanford University, Stanford, CA, USA, 1992. xv+368 pp. ISBN 0-9370-7380-6.
- [107] Donald E. Knuth. *Digital Typography*. CSLI Lecture Notes Number 78. Center for the Study of Language and Information, Stanford University, Stanford, CA, USA, 1999. xv+685 pp. ISBN 0-57586-010-4.
- [108] Helmut Kopka and Patrick W. Daly. *Guide to L<sup>A</sup>T<sub>E</sub>X*. Fourth edition, Addison-Wesley, Boston, MA, USA, 2004. xii+597 pp. ISBN 0-321-17385-6.
- [109] Arnold R. Krommer and Christoph W. Ueberhuber. *Computational Integration*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 1998. xix+445 pp. ISBN 0-89871-374-9.
- [110] Peter Kunkel and Volker Mehrmann. *Differential-Algebraic Equations: Analysis and Numerical Solution*. European Mathematical Society, Zurich, Switzerland, 2006. viii+377 pp. ISBN 3-03719-017-5.

- [111] Peter Laffin. Leeds' role in the data revolution. <http://www.leedsdatathing.co.uk/data-in-a-day/data-in-a-day-peter-laflin-on-leeds-role-in-the-data-revolution>, April 2013.
- [112] Jeffrey C. Lagarias. The  $3x + 1$  problem and its generalizations. *Amer. Math. Monthly*, 92(1):3–23, 1985.
- [113] Leslie Lamport. *TEX: A Document Preparation System. User's Guide and Reference Manual*. Second edition, Addison-Wesley, Reading, MA, USA, 1994. xvi+272 pp. ISBN 0-201-52983-1.
- [114] R. B. Lehoucq, D. C. Sorensen, and C. Yang. *ARPACK Users' Guide: Solution of Large-Scale Eigenvalue Problems with Implicitly Restarted Arnoldi Methods*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 1998. xv+142 pp. ISBN 0-89871-407-9.
- [115] F. M. Leslie. Liquid crystal devices. Technical report, Institute Wiskundige Dienstverlening, Technische Universiteit Eindhoven, Eindhoven, The Netherlands, 1992.
- [116] Randall J. LeVeque. *Finite Difference Methods for Ordinary and Partial Differential Equations: Steady-State and Time-Dependent Problems*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 2007. xv+341 pp. ISBN 978-0-898716-29-0.
- [117] Shangzhi Li, Falai Chen, Yaohua Wu, and Yunhua Zhang. *Mathematics Experiments*. World Scientific, New Jersey, USA, 2003. ix+217 pp. ISBN 978-981-238-049-4.
- [118] J. N. Lyness and J. J. Kaganove. Comments on the nature of automatic quadrature routines. *ACM Trans. Math. Software*, 2(1):65–81, 1976.
- [119] Tom Marchioro. Putting math to work: An interview with Cleve Moler. *Computing in Science and Engineering*, 1(4):10–13, 1999.
- [120] Annik Martin and Shigui Ruan. [Predator-prey models with delay and prey harvesting](#). *J. Math. Biol.*, 43:247–267, 2001.
- [121] Thomas J. McCabe. A complexity measure. *IEEE Trans. Software Engrg.*, SE-2(4):308–320, 1976.

- [122] Cleve B. Moler. Demonstration of a matrix laboratory. In *Numerical Analysis, Mexico 1981*, J. P. Hennart, editor, volume 909 of *Lecture Notes in Mathematics*, Springer-Verlag, Berlin, 1982, pages 84–98.
- [123] Cleve B. Moler. MATLAB users' guide. Technical Report CS81-1 (revised), Department of Computer Science, University of New Mexico, Albuquerque, New Mexico, August 1982. 60 pp.
- [124] Cleve B. Moler. Yet another look at the FFT. *The MathWorks Newsletter*, 1992.
- [125] Cleve B. Moler. MATLAB's magical mystery tour. *The MathWorks Newsletter*, 7(1):8–9, 1993.
- [126] Cleve B. Moler. Objectively speaking. OOPS is not an apology. *MATLAB News and Notes*, pages 6–7, 1999.
- [127] Cleve B. Moler. Parallel MATLAB: Multiple processors and multiple cores. *The MathWorks News and Notes*, pages 26–28, 2007.
- [128] Cleve B. Moler. Backslash. <http://blogs.mathworks.com/cleve/2013/08/19/backslash>, August 2013.
- [129] Cleve B. Moler. Modernization of numerical integration, from quad to integral. <http://blogs.mathworks.com/cleve/2016/05/23/modernization-of-numerical-integration-from-quad-to-integral>, May 2016.
- [130] Cleve B. Moler and Donald Morrison. Replacing square roots by Pythagorean sums. *IBM J. Res. Develop.*, 27(6):577–581, 1983.
- [131] Nick Montfort, Patsy Baudoin, John Bell, Ian Bogost, Jeremy Douglass, Mark C. Marino, Michael Mateas, Casey Reas, Mark Sample, and Noah Vawter. `10 PRINT CHR$(205.5+RND(1)); : GOTO 10`. The MIT Press, Cambridge, MA, USA, 2013. xi+309 pp. ISBN 978-0-262-01846-3.
- [132] J. D. Murray. *Mathematical Biology I. An Introduction*. Springer-Verlag, Berlin, 2002. xxiii+551 pp. ISBN 0-387-95223-3.

- [133] Noël M. Nachtigal, Satish C. Reddy, and Lloyd N. Trefethen. How fast are nonsymmetric matrix iterations? *SIAM J. Matrix Anal. Appl.*, 13(3):778–795, 1992.
- [134] Salih N. Neftci. *An Introduction to the Mathematics of Financial Derivatives*. Second edition, Academic Press, San Diego, CA, USA, 2000. xxvii+527 pp. ISBN 0-12-515392-9.
- [135] Richard D. Neidinger. [Introduction to automatic differentiation and MATLAB object-oriented programming](#). *SIAM Rev.*, 52(3):545–563, 2010.
- [136] M. E. J. Newman, C. Moore, and D. J. Watts. [Mean-field solution of the small-world network model](#). *Physical Review Letters*, 84:3201–3204, 2000.
- [137] J. R. Norris. *Markov Chains*. Cambridge University Press, Cambridge, UK, 1997. ISBN 0-521-48181-3.
- [138] Michael L. Overton. *Numerical Computing with IEEE Floating Point Arithmetic: Including One Theorem, One Rule of Thumb, and One Hundred and One Exercises*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 2001. xiv+104 pp. ISBN 0-89871-482-6.
- [139] Karen Hunger Parshall. *James Joseph Sylvester. Life and Work in Letters*. Oxford University Press, 1998. xv+321 pp. ISBN 0-19-850391-1.
- [140] Heinz-Otto Peitgen, Hartmut Jürgens, and Dietmar Saupe. *Fractals for the Classroom. Part One: Introduction to Fractals and Chaos*. Springer-Verlag, New York, 1992. xiv+450 pp. ISBN 0-387-97041-X.
- [141] Heinz-Otto Peitgen, Hartmut Jürgens, and Dietmar Saupe. *Fractals for the Classroom. Part Two: Complex Systems and Mandelbrot Set*. Springer-Verlag, New York, 1992. xii+500 pp. ISBN 0-387-97722-8.
- [142] E. Pitts. The stability of pendent liquid drops. Part 1. Drops formed in a narrow gap. *J. Fluid Mech.*, 59(4):753–767, 1973.

- [143] William H. Press, Saul A. Teukolsky, William T. Vetterling, and Brian P. Flannery. *Numerical Recipes in FORTRAN: The Art of Scientific Computing*. Second edition, Cambridge University Press, Cambridge, UK, 1992. xxvi+963 pp. ISBN 0-521-43064-X.
- [144] Przemyslaw Prusinkiewicz and Aristid Lindenmayer. *The Algorithmic Beauty of Plants*. Springer-Verlag, Berlin, 1990. ISBN 0387-97297-8.
- [145] *A Million Random Digits with 100,000 Normal Deviates*. RAND, Santa Monica, CA, USA, 2001. Reprint of work originally published in 1955 by The Free Press, Glencoe, Illinois. ISBN 978-0833030474.
- [146] Yousef Saad. *Iterative Methods for Sparse Linear Systems*. Second edition, Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 2003. xviii+528 pp. ISBN 0-89871-534-2.
- [147] Robert Sedgewick. *Algorithms*. Second edition, Addison-Wesley, Reading, MA, USA, 1988. xii+657 pp. ISBN 0-201-06673-4.
- [148] Peter Seibel. *Coders at Work: Reflections on the Craft of Programming*. Apress, Oxford, 2009. xiii+617 pp. ISBN 978-1-4302-1948-4.
- [149] Lawrence F. Shampine. *Numerical Solution of Ordinary Differential Equations*. Chapman and Hall, New York, 1994. x+484 pp. ISBN 0-412-05151-6.
- [150] Lawrence F. Shampine. Solving  $0 = F(t, y(t), y'(t))$  in MATLAB. *Journal of Numerical Mathematics*, 10(4):291–310, 2002.
- [151] Lawrence F. Shampine. Singular boundary value problems for ODEs. *Appl. Math. Comput.*, 138(1):99–112, 2003.
- [152] Lawrence F. Shampine, Richard C. Allen, Jr., and Steven Pruess. *Fundamentals of Numerical Computing*. Wiley, New York, 1997. x+268 pp. ISBN 0-471-16363-5.
- [153] Lawrence F. Shampine, Ian Gladwell, and S. Thompson. *Solving ODEs with MATLAB*. Cambridge University Press, Cambridge, UK, 2003. viii+263 pp. ISBN 0-521-53094-6.

- [154] Lawrence F. Shampine, Jacek A. Kierzenka, and Mark W. Reichelt. Solving boundary value problems for ordinary differential equations in MATLAB with `bvp4c`, 2000. In [99]. 27 pp.
- [155] Lawrence F. Shampine and Mark W. Reichelt. The MATLAB ODE suite. *SIAM J. Sci. Comput.*, 18(1):1–22, 1997.
- [156] Lawrence F. Shampine and S. Thompson. Solving DDEs in MATLAB. *Appl. Numer. Math.*, 37:441–458, 2001.
- [157] Gaurav Sharma and Jos Martin. [MATLAB<sup>@@@</sup>: A language for parallel computing](#). *Int. J. Parallel Prog.*, 37(1):3–36, 2009.
- [158] G. W. Stewart. *Matrix Algorithms. Volume I: Basic Decompositions*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 1998. xx+458 pp. ISBN 0-89871-414-1.
- [159] G. W. Stewart. *Matrix Algorithms. Volume II: Eigensystems*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 2001. xix+469 pp. ISBN 0-89871-503-2.
- [160] Josef Stoer and Christoph Witzgall. *Convexity and Optimization in Finite Dimensions I*. Springer-Verlag, Berlin, 1970. ix+293 pp.
- [161] Gilbert Strang. *Introduction to Linear Algebra*. Third edition, Wellesley-Cambridge Press, Wellesley, MA, USA, 2003. viii+568 pp. ISBN 0-9614088-9-8.
- [162] Steven H. Strogatz. *Nonlinear Dynamics and Chaos: With Applications to Physics, Biology, Chemistry, and Engineering*. Addison-Wesley, Reading, MA, USA, 1994. xi+498 pp. ISBN 0-201-54344-3.
- [163] J. J. Sylvester. [Chemistry and algebra](#). *Nature*, 17:284, 1878.
- [164] Alan Taylor and Desmond J. Higham. [CONTEST: A controllable test matrix toolbox for MATLAB](#). *ACM Trans. Math. Software*, 35(4): 26:1–26:17, 2009.
- [165] Test set for IVP solvers, release 2.4. <http://pitagora.dm.uniba.it/~testset>.



- [166] Lloyd N. Trefethen. *Spectral Methods in MATLAB*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 2000. xvi+165 pp. ISBN 0-89871-465-6.
- [167] Lloyd N. Trefethen. *Approximation Theory and Approximation Practice*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 2013. viii+305 pp. ISBN 978-1-611972-39-9.
- [168] Lloyd N. Trefethen and David Bau III. *Numerical Linear Algebra*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 1997. xii+361 pp. ISBN 0-89871-361-7.
- [169] Lloyd N. Trefethen and J. A. C. Weideman. [The exponentially convergent trapezoidal rule](#). *SIAM Rev.*, 56(3):385–458, 2014.
- [170] Edward R. Tufte. *The Visual Display of Quantitative Information*. Graphics Press, Cheshire, CT, USA, 1983. 197 pp.
- [171] Edward R. Tufte. *Envisioning Information*. Graphics Press, Cheshire, CT, USA, 1990. 126 pp.
- [172] Edward R. Tufte. *Visual Explanations: Images and Quantities, Evidence and Narrative*. Graphics Press, Cheshire, CT, USA, 1997. 158 pp. ISBN 0-9613921-2-6.
- [173] Charles F. Van Loan. *Computational Frameworks for the Fast Fourier Transform*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 1992. xiii+273 pp. ISBN 0-89871-285-8.
- [174] Charles F. Van Loan. Using examples to build computational intuition. *SIAM News*, 28:1, 7, 1995.
- [175] Charles F. Van Loan. *Introduction to Scientific Computing: A Matrix-Vector Approach Using MATLAB*. Prentice-Hall, Englewood Cliffs, NJ, USA, 2000. xi+367 pp. ISBN 0-13-949157-0.
- [176] D. Viswanath. Random Fibonacci sequences and the number 1.3198824... *Math. Comp.*, 69(231):1131–1155, 2000.
- [177] Stan Wagon. *Mathematica in Action*. Second edition, TELOS division of Springer-Verlag, New York, NY, USA, 2000. xvi+592 pp. ISBN 0-387-98684-7.

- [178] A. J. Wathen. [Preconditioning](#). *Acta Numerica*, 24:329–376, 2015.
- [179] David S. Watkins. *Fundamentals of Matrix Computations*. Third edition, Wiley, New York, 2010. xvi+644 pp. ISBN 978-0-470-52833-4.
- [180] Duncan J. Watts. *Small Worlds. The Dynamics of Networks between Order and Randomness*. Princeton University Press, Princeton, NJ, USA, 1999. xv+262 pp. ISBN 978-0-691-11704-7.
- [181] Duncan J. Watts and Steven H. Strogatz. Collective dynamics of ‘small-world’ networks. *Nature*, 393:440–442, 1998.
- [182] Junjie Wei and Shigui Ruan. Stability and bifurcation in a neural network model with two delays. *Physica D*, 130:255–272, 1999.
- [183] Maurice V. Wilkes. *Memoirs of a Computer Pioneer*. The MIT Press, Cambridge, MA, USA, 1985. viii+240 pp. ISBN 0-262-23122-0.
- [184] Paul Wilmott, Sam Howison, and Jeff Dewynne. *The Mathematics of Financial Derivatives: A Student Introduction*. Cambridge University Press, Cambridge, UK, 1995. xiii+317 pp. ISBN 0-521-49699-3.