

## Master Reference List: COS 323

\* On Reserve in Engineering Library

- [Act90] \* F. S. Acton. *Numerical Methods That Work*. Mathematical Association of America, Washington, D.C., 1990. Corrected edition, originally published 1970.
- [Act96] \* F. S. Acton. *Real Computing Made Real*. Princeton University Press, Princeton, N.J., 1996.
- [Ada01] A. Adamatzky. *Computing in Nonlinear Media and Automata Collectives*. Institute of Physics Publishing, Bristol and Philadelphia, 2001.
- [Ada02] A. Adamatzky, editor. *Collision-Based Computing*. Springer, London, 2002.
- [Ame92] \* W. F. Ames. *Numerical Methods for Partial Differential Equations*. Academic Press, Boston, Mass., third edition, 1992.
- [Aok71] M. Aoki. *Introduction to Optimization Techniques*. Macmillan, New York, 1971.
- [Ard95] K. G. Ardlie. *The Frequency, Distribution and Maintenance of t-haplotypes in Natural Populations of Mice*. PhD thesis, Princeton University, Princeton, N.J., 1995.
- [Aro73] J. Aroesty. Tumor growth and chemotherapy: Mathematical methods, computer simulations, and experimental foundations. *Math. Biosci.*, 17:243–300, 1973.
- [Atk93] \* K. Atkinson. *Elementary Numerical Analysis*. John Wiley, New York, second edition, 1993.
- [BD86] W. E. Boyce and R. C. DiPrima. *Elementary Differential Equations*. John Wiley, New York, fifth edition, 1986.
- [Bel98] E. Beltrami. *Mathematics for Dynamic Modeling*. Academic Press, Boston, Mass., second edition, 1998.
- [Ber82] D. P. Bertsekas. *Constrained Optimization and Lagrange Multiplier Methods*. Academic Press, New York, 1982.
- [BG82] A. G. Buckley and J. L. Goffin, editors. *Algorithms for Constrained Minimization of Smooth Nonlinear Functions*. North-Holland, Amsterdam, 1982.
- [BG90] G. L. Baker and J. P. Gollub. *Chaotic Dynamics — An Introduction*. Cambridge University Press, Cambridge, England, 1990.
- [Bre72] R.P. Brent. *Algorithms for minimization without derivatives*. Prentice-Hall, Englewood Cliffs, N.J., 1972.

- [Bru57] D. Bruck. Male segregation ratio advantage as a factor in maintaining lethal alleles in wild populations of house mice. *Genetics*, 43:152–58, 1957.
- [BS73] F. Black and M. Scholes. The pricing of options and corporate liabilities. *J. Political Economy*, 81:637–654, May–June 1973.
- [CC98] S. C. Chapra and R. P. Canale. *Numerical Methods for Engineers*. McGraw-Hill, Boston, third edition, 1998.
- [Cha86] A. Chambers. *The Practical Guide to Marbling Paper*. Thames and Hudson, New York, 1986.
- [Cro88] J. F. Crow. The ultraselfish gene. *Genetics*, 118:389–391, 1988.
- [Dav92] P. W. Davis. *Differential Equations for Mathematics, Science, and Engineering*. Prentice-Hall, Englewood Cliffs, N.J., 1992.
- [Dev91] Jay L. Devore. *Probability and Statistics for Engineering and the Sciences*. Brooks/Cole Publishing Co., Pacific Grove, Ca., third edition, 1991.
- [Dic91] B. W. Dickinson. *Systems: analysis, design, and computation*. Prentice-Hall, Englewood Cliffs, N.J., 1991.
- [DL94] R. Durrett and S. Levin. The importance of being discrete (and spatial). *Theoretical Population Biology*, 46(3):363–394, December 1994.
- [DS83] J. E. Dennis, Jr. and R. B. Schnabel. *Numerical Methods for Unconstrained Optimization and Nonlinear Equations*. Prentice-Hall, Englewood Cliffs, N.J., 1983.
- [Dur95] R. Durrett. Spatial epidemic models. In D. Mollison, editor, *Epidemic Models: Their Structure and Relation to Data*. Cambridge University Press, Cambridge, U.K., 1995.
- [EA96] J. M. Epstein and R. Axtell. *Growing Artificial Societies: Social Science from the Bottom Up*. Brookings Institution Press, Washington, D.C., 1996.
- [EK88] \* L. Edelstein-Keshet. *Mathematical models in biology*. Random House, New York, 1988.
- [Emb95] P. M. Embree. *C Algorithms for Real-Time DSP*. Prentice-Hall, Upper Saddle River, N.J., 1995.
- [Ett96] D. M. Etter. *MATLAB for Engineers and Scientists*. Prentice-Hall, Upper Saddle River, N.J., 1996.
- [Ewe79] W. J. Ewens. *Mathematical Population Genetics*. Springer-Verlag, Berlin, 1979.
- [FB85] R. J. Field and M. Burger. *Oscillations and Traveling Waves in Chemical Systems*. John Wiley, New York, 1985.

- [Fis37] R. A. Fisher. The wave of advance of advantageous genes. *Ann. Eugen.*, 7:355–369, 1937.
- [Fit87] M. D. Fitzgerald. *Financial Options*. Euromoney Publications, London, 1987.
- [FP63] R. Fletcher and M. J. D. Powell. A rapidly convergent descent method for minimization. *Computer J.*, 6:163–168, 1963.
- [FPU65] E. Fermi, J. Pasta, and S. Ulam. Studies of non linear problems. In *Collected Papers of E. Fermi*, volume II. University of Chicago Press, 1965.
- [FR98] N. H. Fletcher and T. D. Rossing. *The Physics of Musical Instruments*. Springer-Verlag, New York, second edition, 1998.
- [GG91] T. W. Gray and J. Glynn. *Exploring Mathematics with Mathematica*. Addison Wesley, Menlo Park, Ca., 1991.
- [Gib91] R. Gibson. *Option Valuation*. McGraw-Hill, New York, 1991.
- [Gle87] J. Gleick. *Chaos*. Viking Penguin, New York, 1987.
- [GMS<sup>+</sup>93] A. J. F. Griffiths, J. H. Miller, D. T. Suzuki, R. C. Lewontin, and W. M. Gelbart. *An Introduction to Genetic Analysis*. W. H. Freeman, New York, fifth edition, 1993.
- [Gou96] J. L. Gould. *Biological Science*. W.W. Norton, New York, 1996.
- [GT96] \* H. Gould and J. Tobochnik. *An Introduction to Computer Simulation Methods*. Addison Wesley, Menlo Park, Ca., second edition, 1996.
- [GW87] R. C. Gonzalez and P. Wintz. *Digital Image Processing*. Addison Wesley, Menlo Park, Ca., second edition, 1987.
- [Ham89] R. W. Hamming. *Introduction to Applied Numerical Analysis*. Hemisphere, New York, 1989.
- [Hay95] Brian Hayes. Space-time on a seashell. *American Scientist*, 83:214–217, May–June 1995.
- [HJP85] M. Hazewinkel, R. Jurkovich, and J. H. P. Paelinck. *Bifurcation Analysis*. D. Reidel Publishing Co., Dordrecht, Holland, 1985.
- [HL95] D. Hanselman and B. Littlefield. *The Student Edition of Matlab*. Prentice-Hall, Englewood Cliffs, N.J., 1995.
- [HR71] L. Hiller and P. Ruiz. Synthesizing musical sounds by solving the wave equation for vibrating objects. *Journal of the Audio Engineering Society*, 19(6 and 7):462–470 (Part I), 542–551 (Part II), June and August 1971.
- [HY84] H. W. Hethcote and J. A. Yorke. *Gonorrhea Transmission Dynamics and Control*. Springer-Verlag, New York, 1984.

- [Ioa05] J. P. A. Ioannidis. Why most published research findings are false. *PLoS Medicine*, 2(8), 2005. e124.
- [JSS97] M. H. Jakubowski, K. Steiglitz, and R. K. Squier. Information transfer between solitary waves in the saturable Schroedinger equation. *Phys. Rev. E*, 1997. accepted.
- [Kou95] W. Kou. *Digital Image Compression: Algorithms and Standards*. Kluwer, Boston, Mass., 1995.
- [Kra90] S. Krasner. *The Ubiquity of Chaos*. American Association for the Advancement of Science, Washington, D.C., 1990.
- [KS92] R. E. Keen and J. D. Spain. *Computer Simulation in Biology; A Basic Introduction*. John Wiley, New York, 1992.
- [KS95] R. Kapral and K. Showalter. *Chemical Waves and Patterns*. Kluwer Academic Press, Dordrecht, the Netherlands, 1995.
- [Lan89] C. G. Langton, editor. *Artificial Life*. Addison Wesley, Menlo Park, Ca., 1989.
- [Lan91] C. G. Langton, editor. *Artificial Life II*. Addison Wesley, Menlo Park, Ca., 1991.
- [Lan94] C. G. Langton, editor. *Artificial Life III*. Addison Wesley, Menlo Park, Ca., 1994.
- [Lar82] H. J. Larson. *Introduction to Probability Theory and Statistical Inference*. John Wiley, New York, 1982.
- [LM96] M. Lakshmanan and K. Murali. *Chaos in Nonlinear Oscillators: Controlling and Synchronization*. World Scientific, Singapore, 1996.
- [Lor63] E. N. Lorenz. Deterministic nonperiodic flow. *Journal of the Atmospheric Sciences*, 20(1):130–141, March 1963.
- [LS95] P. Lansky and K. Steiglitz. Ein: A signal processing scratchpad. *Computer Music J*, 19(3):18–25, 1995.
- [Lyt93] T. W. Lyttle. Cheaters sometimes prosper: Distortion of Mendelian segregation by meiotic drive. *Trends in Genetics*, 9:205–210, 1993.
- [Mal96] B. G. Malkiel. *A Random Walk Down Wall Street*. W. W. Norton and Company, New York, sixth edition, 1996.
- [Med92] A. Medio. *Chaotic Dynamics: Theory and Applications to Economics*. Cambridge University Press, Cambridge, U.K., 1992.
- [Mei95] H. Meinhardt. *The algorithmic beauty of sea shells*. Springer-Verlag, Berlin, 1995.

- [MF95] M. Mitchell and S. Forrest. Genetic algorithms and artificial life. In Christopher G. Langton, editor, *Artificial Life: An Overview*. MIT Press/Bradford Books, 1995.
- [Nah00] P. J. Nahin. *Dueling idiots and other probability puzzlers*. Princeton University Press, Princeton, N.J., 2000.
- [Nah07] P.J. Nahin. *Chases and Escapes: The Mathematics of Pursuit and Evasion*. Princeton University Press, Princeton, N.J., 2007.
- [NW96] R. Nicolaides and N. Walkington. *Maple: A Comprehensive Introduction*. Cambridge University Press, Cambridge, U.K., 1996.
- [Oz91] F. Oz, (director). What About Bob?, 1991. (film), starring Bill Murray and Richard Dreyfuss.
- [Phi76] J. A. Phillips. The fundamentals of atomic bomb design: An assessment of the problems and possibilities confronting a terrorist group or non-nuclear national attempting to design a crude pu239 fission bomb, 1976. undergraduate course paper, Department of Physics, Princeton University, Princeton, NJ.
- [PM78] J. A. Phillips and D. Michaelis. *Mushroom: the story of the A-bomb kid*. Morrow, New York, 1978.
- [Pow79] D. L. Powers. *Boundary Value Problems*. Academic Press, New York, second edition, 1979.
- [PS98] C. H. Papadimitriou and K. Steiglitz. *Combinatorial Optimization: Algorithms and Complexity*. Dover, Mineola, NY, 1998. Reprint of 1982 edition, Prentice-Hall.
- [PSS90] B. Peng, S. K. Scott, and K. Showalter. Period doubling and chaos in a three-variable autocatalator. *Journal of Physical Chemistry*, 94:5243–5246, 1990.
- [PTVF92] \* W. H. Press, S. A. Teukolsky, W. T. Vetterling, and B. P. Flannery. *Numerical Recipes in C: the Art of Scientific Computing*. Cambridge University Press, Cambridge, U.K., second edition, 1992.
- [Puu03] T. Puu. *Attractors, Bifurcations, and Chaos*. Springer, Berlin, second edition, 2003.
- [Rob95] J. Robertson. *Engineering Mathematics with Mathematica*. McGraw-Hill, New York, 1995.
- [Rob96] J. Robertson. *Engineering Mathematics with Maple*. McGraw-Hill, New York, 1996.
- [Ros60] H. H. Rosenbrock. An automatic method for finding the greatest or least value of a function. *Computer J.*, 3, 1960.

- [Row90] G. Rowland. *Non-linear Phenomena in Science and Engineering*. Ellis Horwood, Chichester, England, 1990.
- [Rui69] P. Ruiz. A technique for simulating the vibrations of strings with a digital computer. Master's thesis, University of Illinois, Champaign-Urbana, Ill., 1969.
- [Rus92] \* J. C. Russ. *The Image Processing Handbook*. CRC Press, Boca Raton, Fla., 1992.
- [Sca85] L. E. Scales. *Introduction to Nonlinear Optimization*. Springer-Verlag, New York, 1985.
- [SCM73] A. C. Scott, F. Y. F. Chu, and D. W. McLaughlin. The soliton: A new concept in applied science. *Proc. IEEE*, 61(10), October 1973.
- [Ser92] R. Serber. *The Los Alamos primer: the first lectures on how to build an atomic bomb*. University of California Press, Berkeley, CA, 1992.
- [SHC96] K. Steiglitz, M. L. Honig, and L. M. Cohen. A computational market model based on individual action. In S. Clearwater, editor, *Market-Based Control: A Paradigm for Distributed Resource Allocation*. World Scientific, Hong Kong, 1996. Chapter 1.
- [Sil85] L. M. Silver. Mouse *t* haplotypes. *Annual Review in Genetics*, 19:179–208, 1985.
- [Sil93] L. M. Silver. The peculiar journey of a selfish chromosome: Mouse *t* haplotypes and meiotic drive. *Trends in Genetics*, 9:250–254, 1993.
- [SKW88] K. Steiglitz, I. Kamal, and A. Watson. Embedding computation in one-dimensional automata by phase coding solitons. *IEEE Trans. Computers*, 37(2):138–145, Feb. 1988.
- [Smi85] \* G. D. Smith. *Numerical Solution of Partial Differential Equations*. Clarendon Press, Oxford, U.K., third edition, 1985.
- [Smi86] J. Maynard Smith. *Problems of Biology*. Oxford University Press, Oxford, England, 1986.
- [Smi89] \* J. Maynard Smith. *Evolutionary Genetics*. Oxford University Press, Oxford, England, 1989.
- [SR66] I. S. Sokolnikoff and R. M. Redheffer. *Mathematics of Physics and Modern Engineering*. McGraw-Hill, New York, second edition, 1966.
- [SS94] R. Squier and K. Steiglitz. Programmable parallel arithmetic in cellular automata using a particle model. *Complex Systems*, 8:311–323, 1994.
- [SS98] K. Steiglitz and D. Shapiro. Simulating the madness of crowds: Price bubbles in an auction-mediated robot market. *Computational Economics*, 12:35–59, 1998.

- [ST94] W. Shaw and J. Tigg. *Applied Mathematica*. Addison Wesley, Menlo Park, Ca., 1994.
- [Ste96] \* K. Steiglitz. *A DSP Primer, with Applications to Digital Audio and Computer Music*. Addison Wesley, Menlo Park, Ca., 1996.
- [Str94] S. H. Strogatz. *Nonlinear Dynamics and Chaos*. Addison Wesley, Reading, MA, 1994.
- [SW97] C. Stickney and R. Weil. *Financial Accounting*. Dryden Press, New York, eighth edition, 1997.
- [Swi83] H. L. Swinney. Observations of order and chaos in nonlinear systems. *Physica D*, 7:3–15, 1983.
- [Tay86] \* A. B. Taylor. *Mathematical Models in Applied Mechanics*. Clarendon Press, Oxford, U.K., 1986.
- [Tez95] S. Tezuka. *Uniform Random Numbers: Theory and Practice*. Kluwer Academic Press, Boston, 1995.
- [WNW88] J. H. Werren, U. Nur, and C.-I. Wu. Selfish genetic elements. *Trends in Ecology and Evolution*, 3:297–302, 1988.
- [Wol86] S. Wolfram, editor. *Theory and Application of Cellular Automata*. World Scientific, Singapore, 1986.
- [Wol02] S. Wolfram, editor. *A New Kind of Science*. Wolfram Media, Champaign, IL, 2002.

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