Master Reference List: COS 323

* On Reserve in E-Quad Library; ** On reserve in Biology 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.

[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.

[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 Wesly, Menlo Park, Ca., 1991.

[Gib91] R. Gibson. *Option Valuation.* McGraw-Hill, New York, 1991.

[Gle87] J. Gleick. *Chaos.* Viking Penguin, New York, 1987.

[GMS+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 Wesly, Menlo Park, Ca., second edition, 1996.

[GW87] R. C. Gonzalez and P. Wintz. *Digital Image Processing.* Addison Wesly, 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.

[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.

[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.

[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.

[Pow79] D. L. Powers. *Boundary Value Problems.* Academic Press, New York, second edition, 1979.

[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.

[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.

[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 Acounting.* 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.