References

1. Akima H (1978a), A method of bivariate interpolation and smooth surface fitting for irregularly distributed data points, ACM Transactions on Mathematical Software (4): 148-159
2. Akima H (1978b), Algorithm 526: Bivariate interpolation and smooth surface fitting for irregularly distributed data points, ACM Transactions on Mathematical Software (4): 160-164
3. Akin H and Siemes H (1988), Praktische Geostatistik, Springer, Berlin Heidelberg New York
4. Alexander M (1994) Biodegradation and Bioremediation, Academic Press, San Diego, Calif., 302 pp
5. Andersen PF (1993), A manual of instructional problems for the USGS MODFLOW model. Center for Subsurface Modeling Support. EPA/600/R-93/010
6. Anderson MP (1979), Using models to simulate the movement of contaminants through ground water flow systems. Critical Reviews in Environmental Control 9(2): 97-156
7. Anderson MP (1984) Movement of contaminants in groundwater: groundwater transport - advection and dispersion. Groundwater Contamination: 37-45. National Academy Press, Washington DC
8. Anderson MP and Woessner WW (1991) Applied groundwater modeling: simulation of flow and advective transport. 381 pp. Academic Press, San Diego, CA
9. Ashcraft CC and Grimes RG (1988), On vectorizing incomplete factorization and SSOR preconditioners. SIAM Journal of Scientific and Statistical Computing 9(1): 122-151
10. Axelsson O and Lindskog G (1986), On the eigenvalue distribution of a class of preconditioning methods, Numerical Mathematics (48): 479-498
11. Baetsle LH (1967), Computational methods for the prediction of underground movement of radio-nuclides. J Nuclear Safety (8)6: 576-588
12. Bear J (1972), Dynamics of fluids in porous media. American Elsevier Pub. Co., New York.
13. Bear J (1979), Hydraulics of Groundwater, McGraw-Hill, N.Y., 569 pp
14. Bear J and Verruijt A (1987), Modeling groundwater flow and pollution, D. Reidel Publishing, Dordrecht, Holland
15. Behie A and Forsyth Jr. P (1983), Comparison of fast iterative methods for symmetric systems, IMA J of Numerical Analysis (3): 41-63
16. Borden RC and Bedient PB (1984), Transport of dissolved hydrocarbons influenced by oxygen-limited biodegradation, 1, theoretical development, Water Resour Res 20, 1973-1982

17. Cheng X and Anderson MP (1993), Numerical simulation of ground water interaction with lakes allowing for fluctuating lake levels. Ground Water 31(6): 929-933
18. Chiang WH and Kinzelbach W (1991, 1993), Processing Modflow (PM), Pre- and post-processors for the simulation of flow and contaminant transport in groundwater system with MODFLOW, MODPATH and MT3D. Distributed by Scientific Software Group, Washington, DC
19. Chiang WH (1993), Water Budget Calculator - A computer code for calculating global and subregional water budget using results from MODFLOW. Kassel University, Germany.
20. Chiang WH and Kinzelbach W (1994), PMPATH. An advective transport model for Processing Modflow and Modflow. Geological Survey of Hamburg, Germany.
21. Chiang WH, Kinzelbach W and Rausch R (1998), Aquifer Simulation Model for Windows - Groundwater flow and transport modeling, an integrated program. Gebrder Borntraeger, Berlin Stuttgart. ISBN 3-443-01039-3
22. Chiang WH, Bekker M and Kinzelbach W (2001) User guide for three dimensional visualization for MODFLOW-related groundwater flow and transport models, Institute for Groundwater Studies, University of the Free State, South Africa.
23. Chiang WH and Kinzelbach W (2001), 3D-Groundwater Modeling with PMWIN. First Edition. Springer Berlin Heidelberg New York. ISBN 3-540 67744-5, 346 pp
24. Chiang WH, Chen J and Lin J (2002), 3D Master - A computer program for 3D visualization and real-time animation of enviromental data. Excel Info Tech, Inc. 146 pp.
25. Clement TP (1997), RT3D - A modular computer code for simulating reactive multi-species transport in 3-dimensional groundwater systems. Battelle Pacific Northwest National Laboratory. Richland, Washington 99352
26. Clement TP (2000), RT3D Version 2.0 - A modular computer code for simulating reactive multispecies transport in 3-dimensional groundwater systems.
27. Clement TP (2002), RT3D Version 2.5 - A modular computer code for simulating reactive multispecies transport in 3-dimensional groundwater systems.
28. Cooper Jr. HH and Rorabaugh MJ (1963), Ground-water movements and bank storage due to flood stages in surface streams: U. S. Geological Survey. Water-Supply Paper 1536-J: 343-366
29. Council GW (1999), A lake package for MODFLOW (LAK2). Documentation and user's manual. HSI Geotrans.
30. Davis JC (1973), Statistics and data analysis in geology. John Wiley & Sons, New York
31. Deutsch CV and Journel AG (1998), GSLIB - Geostatistical Software Library and User's Guide, Second Edition. Oxford University Press. ISBN 0-19-510015-8
32. Doherty J (1990), MODINV - Suite of software for MODFLOW pre-processing, post-processing and parameter optimization. User's manual. Australian Centre for Tropical Freshwater Research
33. Doherty J, Brebber L and Whyte P (1994), PEST - Model-independent parameter estimation. User's manual. Watermark Computing. Australia
34. Doherty J (2000), PEST - Model-independent parameter estimation. User's manual. Watermark Computing. Australia
35. Doherty J (2001a), MODFLOW-ASP - Using MODFLOW-2000 with PEST-ASP. Watermark Computing. Australia
36. Doherty J (2001b), PEST-ASP upgrade notes. Watermark Computing. Australia
37. Domenico PA (1972), Concepts and Models in Groundwater Hydrology, McGraw-Hill, New York, 405 pp
38. Domenico PA and Schwartz FW (1990), Physical and Chemical Hydrogeology. John Wiley & Sons, New York., 709 pp

39. Englund E and Sparks A (1991), User's guide of GEO-EAS - Geostatistical environmental assessment software, EPA 600/8-91/008
40. Fenske J P, Leake SA and Prudic DE (1996), Documentation of a computer program (RES1) to simulate leakage from reservoirs using the modular finite-difference ground-water flow model (MODFLOW), U. S. Geological Survey, Open-File Report 96-364
41. Fetter CW (1994), Applied Hydrogeology, 3rd Edition. Macmillan College, New York, 691 pp
42. Franke R (1982), Scattered data interpolation: Tests of some methods. Mathematics of computation (38)157: 181-200
43. Freeze RA and Cherry JA (1979), Groundwater. Prentice-Hall, Inc. Englewood Cliffs, New Jersey
44. Frenzel H (1995), A field generator based on Mejia's algorithm. Institut fr Umweltphysik, University of Heidelberg, Germany
45. Gelhar LW and Collins MA (1971), General analysis of longitudinal dispersion in nonuniform flow. Water Resour Res 7(6): 1511-1521
46. Gelhar LW, Mantaglou A, Welty C and Rehfeldt KR (1985), A review of field-scale physical solute transport processes in saturated and unsaturated porous media. EPRI Report EA-4190, Electric Power Research Institute, Palo Alto, CA
47. Gelhar LW, Welty C and Rehfeldt KR (1992), A critical review of data on field-scale dispersion in aquifers. Water Resour Res 28(7): 1955-1974
48. Hantush, MS and Jacob CE (1955), Non-steady radial flow in an infinite leaky aquifer, Trans. Am Geophys Un 36(11): 95-100
49. Harbaugh, AW (1990), A computer program for calculating subregional water budgets using results from the U.S. Geological Survey modular three-dimensional ground-water flow model: U.S. Geological Survey Open-File Report 90-392, 46 p.
50. Harbaugh AW (1995), Direct solution package based on alternating diagonal ordering for the U.S. Geological Survey modular finite difference ground water flow model: U.S. Geological Survey Open File Report 95 288, 46 pp
51. Harbaugh AW and McDonald MG (1996a), User's documentation for MODFLOW-96, an update to the U.S. Geological Survey modular finite-difference ground-water flow model, USGS Open-File Report 96-485
52. Harbaugh AW and McDonald MG (1996b), Programmer's documentation for MODFLOW-96, an update to the U.S. Geological Survey modular finite-difference ground-water flow model, USGS Open-File Report 96-486
53. Harbaugh AW, Banta ER, Hill MC and McDonald MG (2000), MODFLOW-2000, The U.S. Geological Survey modular ground-water model User guide to modularization concepts and the ground-water flow process, U. S. Geological Survey, Open-file report 00-92.
54. Higgins GH (1959), Evaluation of the groundwater contamination hazard from underground nuclear explosives. J Geophys Res (64), 1509-1519
55. Hill MC (1990a), Preconditioned Conjugate-Gradient 2 (PCG2), A computer program for solving groundwater flow equations, U. S. Geological Survey, Denver
56. Hill MC (1990b), Solving groundwater flow problems by conjugate-gradient methods and the strongly implicit procedure, Water Resour Res 26(9): 1961-1969
57. Hill MC (1992), MODFLOW/P - A computer program for estimating parameters of a transient, three-dimensional, groundwater flow model using nonlinear regression, U.S. Geological Survey, Open-file report 91-484
58. Hill MC (1998), Methods and guidelines for effective model calibration. U.S. Geological Survey, Water-Resources Investigations Report 98-4005

59. Hill MC, Banta ER, Harbaugh AW and Anderman ER (2000), MODFLOW-2000, The U.S. Geological Survey modular ground-water model - User guide to the observation, sensitivity, and parameter-estimation processes and three post-processing programs, U. S. Geological Survey, Open-file report 00-184.
60. Hoschek J and Lasser D (1992), Grundlagen der geometrischen Datenverarbeitung, B. G. Teubner, Stuttgart, Germany
61. Hsieh PA (1986), A new formula for the analytical solution of the radial dispersion problem, Water Resour Res 22(11): 1597-1605.
62. Hsieh PA and Freckleton JR (1993), Documentation of a computer program to simulate horizontal-flow barriers using the U. S. Geological Survey's modular three-dimensional finite-difference ground-water flow model. U.S. Geological Survey, Open-File Report 92-477
63. Hunt BW (1978), Dispersive sources in uniform groundwater flow. ASCE Journal of the Hydraulics Division 104(HY1), p.75-85.
64. Integrated Environmental Services, Inc. (2003), Web-based Environmental Data Management System. http://www.iesinet.com.
65. Javandel I, Doughty C and Tsang CF (1984), Groundwater transport: Handbook of mathematical models, 228 pp. American Geophysical Union
66. Kinzelbach W (1986), Groundwater Modelling - An introduction with sample programs in BASIC. Elsevier. ISBN 0-444-42582-9
67. Kinzelbach W, Ackerer P, Kauffmann C, Kohane B and Mller B (1990), FINEM, Numerische Modellierung des zweidimensionalen Strmungs- und Transportproblems mit Hilfe der Methode der finiten Elemente. Programmdokumentation Nr. 89/23 (HG 111), Institut fr Wasserbau, Universitt Stuttgart.
68. Kinzelbach W, Marburger M and Chiang WH (1992), Determination of catchment areas in two and three spatial dimensions. J Hydrol (134): 221-246
69. Kinzelbach W and Rausch R (1995), Grundwassermodellierung - Einfhrung mit bungen. Gebrder Borntraeger, Berlin Stuttgart. ISBN 3-443-01032-6
70. Kipp, KL, Jr. (1986), HST3D–A computer code for simulation of heat and solute transport in three-dimensional ground-water flow systems: U.S. Geological Survey Water-Resources Investigations Report 86-4095, 597 p.
71. Konikow LF and Bredehoeft JD (1978), Computer model of two-dimensional solute transport and dispersion in ground water. U. S. Geological Survey. Water Resources Investigation. Book 7, Chapter C2, 90 pp
72. Konikow LF, Goode DJ and Homberger GZ (1996), A three-dimensional method-of-characteristics solute-transport model. U. S. Geological Survey. Water Resources Investigations report 96-4267
73. Kuiper LK (1981), A comparison of the incomplete Cholesky conjugate gradient method with the strongly implicit method as applied to the solution of two-dimensional groundwater flow equations, Water Resour Res 17(4): 1082-1086
74. Leake SA and Prudic DE (1991), Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model. U.S. Geological Survey
75. Leonard BP (1979), A stable and accurate convective modeling procedure based on quadratic upstream interpolation. Computer Methods Appl Mech. Engng (19)
76. Leonard BP (1988), Universal Limiter for transient interpolation modeling of the advective transport equations: the ULTIMATE conservative difference scheme, NASA Technical Memorandum 100916 ICOMP-88-11

77. Leonard BP and Niknafs HS (1990), Cost-effective accurate coarse-grid method for highly convective multidimensional unsteady flows, NASA Conference Publication 3078: Computational Fluid Dynamics Symposium on Aeropropulsion, April 1990
78. Leonard BP and Niknafs HS (1991), Sharp monotonic resolution of discontinuities without clipping of narrow extrema, Computer & Fluids, 19(1): 141-154
79. Li YH and Gregory S (1974), Diffusion of ions in seawater and in deep-sea sediments. Pergamon Press
80. Mathéron G (1963), Principles of geostatistics, Economic Geology (58): 1246-1266
81. McDonald MG and Harbaugh AW (1988), MODFLOW, A modular three-dimensional finite difference ground-water flow model, U. S. Geological Survey, Open-file report 83-875, Chapter A1
82. McDonald MG, Harbaugh AW, Orr BR and Ackerman DJ (1991), BCF2 - A method of converting no-flow cells to variable-head cells for the U.S. Geological Survey Modular Finite-Difference Ground-water Flow Model. U.S. Geological Survey, Open-File Report 91-536, Denver
83. Mehl SW and Hill MC (2001), User guide to the Link-AMG (LMG) package for solving matrix equations using an algebraic multigrid solver.U.S. Geological Survey Open-File Report 01-177.
84. Moench AF and Ogata A (1981), A numerical inversion of the Laplace transform solution to radial dispersion in a porous medium. Water Resour Res, 17(1): 250-253
85. Neumann SP (1984), Adaptive Eulerian-Lagrangian finite element method for advection-dispersion. Int. J. Numerical Method in Engineering (20): 321-337
86. Oakes BD and Wilkinson WB (1972), Modeling of ground water and surface water systems: I - Theoretical relationships between ground water abstraction and base flow: Reading, Great Britain, Reading Bridge House, Water Resources Board (16), 37 pp
87. Parkhurst and Appelo (2000) PHREEQC (Version 2) - A computer program for speciation, batch-reaction, one-dimensional transport, and inverse geochemical calculations. U. S. Geological Survey. Water Resources Investigations report 99-4259
88. Pannatier Y (1996), Variowin, Software for spatial data analysis in 2D, Springer, Berlin Heidelberg New York. ISBN 0-387-94679-9
89. Poeter EP and Hill MC (1998), Documentation of UCODE, a computer code for universal inverse modeling, U.S. Geological Survey, Water-Resources Investigations Report 98-4080
90. Pollock DW (1988), Semianalytical computation of path lines for finite difference models. Ground Water (26)6: 743-750
91. Pollock DW (1989), MODPATH (version 1.x)- Documentation of computer programs to compute and display pathlines using results from the U. S. Geological Survey modular three-dimensional finite-difference ground-water model. U. S. Geological Survey Open-file report 89-381
92. Pollock DW (1994), User's Guide for MODPATH/MODPATH-PLOT, Version 3: A particle tracking post-processing package for MODFLOW, the U. S. Geological Survey finite difference groundwater flow model. U. S. Geological Survey, Open-file report 94-464.
93. Prommer H (2002), PHT3D A multicomponent transport model for three dimensional reactive transport in saturated porous media. Personal communication.
94. Prudic DE (1988), Documentation of a computer program to simulate stream-aquifer relations using a modular, finite-difference, ground-water flow model, U.S. Geological Survey, Open-File Report 88-729, Carson City, Nevada
95. Rausch R (1998), Computer program for the calculation of 1-D and 2-D concentration distribution. Personal communication

96. Renka RJ (1984a), Interpolation of the data on the surface of a sphere. ACM Transactions on Mathematical Software (10): 417-436
97. Renka RJ (1984b), Algorithm 624: Triangulation and interpolation at arbitrarily distributed points in the plane. ACM Transactions on Mathematical Software (10): 440-442
98. Rifai HS, Bedient PB, Borden RC and Haasbeek JF (1987) BIOPLUME II - Computer model of two-dimensional contaminant transport under the influence of oxygen limited biodegradation in ground water, National Center for Ground Water Research, Rice University.
99. Rifai HS, Newell CJ, Gonzales JR, Dendrou S, Kennedy L and Wilson J (1997) BIOPLUME III, Natural attenuation decision support system, version 1 User's Manual, Air Force Center for Environmental Excellence, Brooks AFB, San Antonio, Texas
100. Robinson RA and Stokes RH (1965), Electrolyte Solutions, 2nd ed. Butterworth, London
101. Saad Y (1985) Practical use of polynomial preconditionings for the conjugate gradient method, SIAM Journal of Scientific and Statistical Computing, 6(4): 865-881
102. Scandrett C (1989) Comparison of several iterative techniques in the solution of symmetric banded equations on a two pipe Cyber 205, Appl Math Comput 34(2): 95-112
103. Schaars FW and van Gerven MW (1997) Density package, Simulation of density driven flow in MODFLOW. KIWA-report SWS 97.511, ISBN 90-74741-42-8. KIWA Research & Consultancy, Nieuwegein. The Netherlands
104. Seber GAF and Wild CJ (1989) Nonlinear Regression, John Wiley & Sons, NY, 768 pp
105. Shepard D (1968), A two dimensional interpolation function for irregularly spaced data. Proceedings 23rd. ACM126 National Conference: 517-524
106. Spitz K and Moreno J (1996), A practical guide to groundwater and solute transport modeling, 461 pp. John Wiley & Sons, New York. ISBN: 0-471-13687-5
107. Sun NZ (1995), Mathematical modeling of groundwater pollution, 377 pp. Springer, Berlin Heidelberg New York.
108. Theil H (1963) On the use of incomplete prior information in regression analysis: American Statistical Association Journal, 58 (302): 401-414
109. Travis CC (1978), Mathematical description of adsorption and transport of reactive solutes in soil: A review of selected literature. Oak Ridge Natl. Lab. ORNL-5403
110. Trescott PC and Larson SP (1977), Comparison of iterative methods of solving two-dimensional groundwater flow equations, Water Resour Res 13(1): 125-136
111. Watson DF (1992), Contouring - A guide to the analysis and display of spatial data (with programs on diskette). Pergamon, ISBN 0-08-040286-0
112. Wexler EJ (1992), Analytical solutions for one-, two- and three-dimensional solute transport in groundwater systems with uniform flow. U. S. Geological Survey. Techniques of Water Resources Investigations, Book 3, Chapter B7, 190 pp
113. Wilson JD and Naff RL (2004), The U.S. Geological Survey modular groundwater model - GMG linear equation solver package documentation. U.S. Geogolical Survey. Open-File Report 2004-1261.
114. Wilson JL and Miller PJ (1978), Two-dimensional plume in uniform ground-water flow. J. Hyd Div ASCE(4): 503-514
115. Zheng C (1990), MT3D, a modular three-dimensional transport model, S.S. Papadopulos & Associates, Inc., Rockville, Maryland
116. Zheng C and Bennett GD (1995), Applied contaminant transport modeling: Theory and practice, 440 pp. Van Nostrand Reinhold, New York
117. Zhang Y, Zheng C, Neville CJ and Andrews CB (1995), ModIME An integrated modeling environment for MODFLOW, PATH3D and MT3D. S.S. Papadopulos & Associates, Inc., Bethesda, Maryland

118. Zheng C (1996), MT3D Version DoD_1.5, a modular three-dimensional transport model, The Hydrogeology Group, University of Alabama
119. Zheng C and Wang PP (1999), MT3DMS: A modular three-dimensional multispecies model for simulation of advection, dispersion and chemical reactions of contaminants in groundwater systems; Documentation and Users Guide, Contract Report SERDP-99-1, U.S. Army Engineer Research and Development Center, Vicksburg, MS.
120. Zheng C (1999), MT3D99 A modular 3D multispecies transport simulator, S.S. Papadopulos and Associates, Inc. Bethesda, Maryland
121. Zheng C and Wang PP (2002), MGO A Modular Groundwater Optimizer, The University of Alabama, Alabama.

Index