References

Theory Reference Index

1. Ahmad, S., Irons, B. M. and Zienkiewicz, O. C., "Analysis of Thick and Thin Shell Structures by Curved Finite Elements", *International Journal for Numerical Methods in Engineering*, Vol. 2, No. 3, pp. 419–451 (1970).

2. Bathe, K. J., *Finite Element Procedures in Engineering Analysis*, Prentice–Hall, Englewood Cliffs (1982).

3. Biot, M. A., *Mechanics of Incremental Deformation*, John Wiley and Sons, New York (1965).

4. Chen, L. H., "Piping Flexibility Analysis by Stiffness Matrix", ASME, *Journal of Applied Mechanics* (December, 1959).

5. Cook, R. D., *Concepts and Applications of Finite Element Analysis*, Second Edition, John Wiley and Sons, New York (1981).

6. Cook, R. D., "Two Hybrid Elements for Analysis of Thick, Thin and Sandwich Plates", *International Journal for Numerical Methods in Engineering*, Vol. 5, No. 2, pp. 277–288 (1972).

7. Cuniff, D. F., and O'Hara, G. J., "Normal Mode Theory for Three–Directional Motion", *NRL Report 6170*, U. S. Naval Research Laboratory, Washington D. C. (1965).

8. Denn, M. M., *Optimization by Variational Methods*, McGraw–Hill, New York (1969).

9. Henshell, K. D. and Ong, J. H., "Automatic Masters for Eigenvalue Economization", *Earthquake Engineering and Structural Dynamics*, Vol. 3, pp. 375–383 (1975).

10. Imgrund, M. C., *ANSYS® Verification Manual*, Swanson Analysis Systems, Inc. (1992).

11. Flügge, W., *Stresses in Shells*, Springer Verlag, Berlin (1967).

12. Fritz, R. J., "The Effect of Liquids on the Dynamic Motions of Immersed Solids", *ASME Journal of Engineering for Industry* (February, 1972)

13. Galambos, T. V., *Structural Members and Frames*, Prentice–Hall, Englewood Cliffs (1968).

14. Guyan, R. J., "Reduction of Stiffness and Mass Matrices", *AIAA Journal*, Vol. 3, No. 2 (February, 1965).

15. Hall, A. S., and Woodhead, R. W., *Frame Analysis*, John Wiley and Sons, New York (1961).

16. Rajakumar, C. and Rogers, C. R., "The Lanczos Algorithm Applied to Unsymmetric Generalized Eigenvalue Problem", *International Journal for Numerical Methods in Engineering*, Vol. 32, pp. 1009–1026 (1992).

17. Irons, B. M., "A Frontal Solution Program for Finite Element Analysis", *International Journal for Numerical Methods in Engineering*, Vol. 2, No. 1, January, 1970, pp. 5–23 (Discussion May, 1970, p. 149).

18. Wilkinson, J. H., *The Algebraic Eigenvalue Problem*, Clarendon Press, Oxford, pp. 515–569 (1988).

19. Kohnke, P. C., and Swanson, J. A., "Thermo–Electric Finite Elements", *Proceedings, International Conference on Numerical Methods in Electrical and Magnetic Field Problems*, June 1–4, 1976, Santa Margherita Liqure (Italy).

20. Kohnke, P. C., "Large Deflection Analysis of Frame Structures by Fictitious Forces", *International Journal of Numerical Methods in Engineering*, Vol. 12, No. 8, pp. 1278–1294 (1978).

21. Kollbrunner, C. F., and Basler, K., *Torsion in Structures*, Springer–Verlag, Berlin, (1969).

22. Konopinski, E. J., *Classical Descriptions of Motion*, Freeman and Company, San Francisco (1969).

23. Kreyszig, E., *Advanced Engineering Mathematics,* John Wiley and Sons, Inc., New York (1962).

24. Lekhnitskii, S. G., *Theory of Elasticity of an Anisotropic Elastic Body*, Holden–Day, San Francisco (1963).

25. Melosh, R. J., and Bamford, R. M., "Efficient Solution of Load–Deflection Equations", *ASCE Journal of the Structural Division*, Vol. 95, No. ST4, Proc. Paper 6510, Apr., 1969, pp. 661–676 (Discussions Dec., 1969, Jan., Feb., May, 1970, Closure, Feb., 1971).

26. Kanok–Nukulchai, "A Simple and Efficient Finite Element for General Shell Analysis", *International Journal for Numerical Methods in Engineering*, Vol. 14, pp. 179–200 (1979).

27. Oden, J. T., *Mechanics of Elastic Structures*, McGraw–Hill, New York (1968).

28. Przemieniecki, J. S., *Theory of Matrix Structural Analysis*, McGraw–Hill, New York (1968).

29. Schnobrich, W. C., and Suidan, M., "Finite Element Analysis of Reinforced Concrete", *ASCE Journal of the Structural Division*, ST10, pp. 2109–2122 (October, 1973).

30. Seide, P., "Large Deflection of Rectangular Membranes Under Uniform Pressure", *International Journal of Non–Linear Mechanics*, Vol. 12, pp. 397–406.

31. Skjelbreia, L., and Hendrickson, J. A., "Fifth Order Gravity Wave Theory", *Proceedings, Seventh Conference on Coastal Engineering*, Ch. 10, pp. 184–196 (1961).

32. Timoshenko. S., and Woinowskey–Kreiger, S., *Theory of Plates and Shells*, McGraw–Hill, New York (1959).

33. Tracey, D. M., "Finite Elements for Three Dimensional Elastic Crack Analysis", *Nuclear Engineering and Design*, 26 (1973).

34. Vanmarcke, E. H., "Structural Response to Earthquakes", *Seismic Risk and Engineering Decisions*, Elsvier Scientific Publishing Co., Amsterdam–Oxford, New York, (edited by C. Lomnitz and E. Rosemblueth), pp. 287–337 (1976).

35. Wheeler, J. D., "Method of Calculating Forces Produced by Irregular Waves", *Journal of Petroleum Technology*, Vol. 22, pp. 359–367 (1970).

36. Willam, K. J., University of Colorado, Boulder, (Private Communication) (1982).

37. Willam, K. J., and Warnke, E. D., "Constitutive Model for the Triaxial Behavior of Concrete", *Proceedings, International Association for Bridge and Structural Engineering*, Vol. 19, ISMES, Bergamo, Italy, p. 174 (1975).

38. Wilson, E. L., Taylor, R. L., Doherty, W. P., and Ghaboussi, J., "Incompatible Displacement Models", *Numerical and Computer Methods in Structural Mechanics*, edited by S. J. Fenves, et al., Academic Press, Inc., N. Y. and London, pp. 43–57 (1973).

39. Zienkiewicz, O. C., *The Finite Element Method*, McGraw–Hill Company, London, (1977).

40. *ASME Boiler and Pressure Vessel Code*, Section III, Division 1, Subsection NC, Class 2 Components (1974).

41. "Regulatory Guide", Published by the U. S. Nuclear Regulatory Commission, *Regulatory Guide* 1.92, Revision 1 (February 1976).

42. Tamma, Kumar K. and Namburu, Raju R., "Recent Advances, Trends and New Perspectives Via Enthalpy–Based Finite Element Formulations for Applications to Solidification Problems", *International Journal for Numerical Methods in Engineering*, Vol. 30, pp. 803–820 (1990).

43. *Shore Protection Manual*, Published by the U. S. Army Coastal Engineering Research Center, Vol. I, Third Edition (1977).

44. Beer, F. P., and Johnston, R. E., *Vector Mechanics for Engineers, Statics and Dynamics*, McGraw–Hill, New York (1962).

45. Hinton, E., Rock, A., and Zienkiewicz, O., "A Note on Mass Lumping and Related Processes in the Finite Element Method", *International Journal of Earthquake Engineering and Structural Dynamics*, Vol. 4, pp. 245–249 (1976).

46. Krieg, R. D., and Krieg, D. B., "Accuracies of Numerical Solution Methods for the Elastic–Perfectly Plastic Model", *Journal of Pressure Vessel Technology*,

Vol. 99, No. 4, Series J, *Transactions of the ASME,*November, pp. 510–515 (1977).

47.   Thomson, William T., *Theory of Vibrations with Applications*, Prentice Hall, pp. 343–352 (1971).

48.   Roark, R. J., and Young, W. C., *Formulas for Stress and Strain*, McGraw–Hill, New York (1975).

49.   Taylor, R. L., Beresford, P. J., and Wilson, E. L., "A Non–Conforming Element for Stress Analysis", *International Journal for Numerical Methods in Engineering*, Vol. 10, pp. 1211–1219 (1976).

50.   Hill, R., *The Mathematical Theory of Plasticity*, Oxford University Press, New York (1983).

51.   Shih, C. F., and Lee, D., "Further Developments in Anisotropic Plasticity", *Journal of Engineering Materials and Technology*, Vol. 100, pp. 294–302 (July 1978).

52.   Valliappan, S., "Nonlinear Analysis for Anistropic Materials", *International Journal for Numerical Methods in Engineering*, Vol. 10, pp. 597–606 (1976).

53.   Besseling, J. F., "A Theory of Elastic, Plastic, and Creep Deformations of an Initially Isotropic Material Showing Aisotropic Strain–Hardening Creep Recovery and Secondary Creep", *Journal of Applied Mechanics*, pp. 529–536 (December 1958).

54.   Owen, R. J., Prakash, A., and Zienkiewicz, O. C., "Finite Element Analysis of Non–Linear Composite Materials by Use of Overlay Sytems", *Computers and Structures*, Pergamon Press, Vol. 4, pp. 1251–1267.

55.   Holman, J. P., *Heat Transfer*, Fourth Edition, McGraw–Hill, New York (1976).

56.   Batoz, J. L., Bathe, K. J., and Ho, L. W., "A Study of Three–Node Triangular Plate Bending Elements", *International Journal of Numerical Methods in Engineering*, Vol. 15, pp. 1771–1812 (1980).

57.   Razzaque, A., "On the Four Noded Discrete Kirchhoff Shell Elements", Robinson, J. (ed.), *Accuracy Reliability Training in FEM Technology*, pp. 473–483 (1984).

58. Gresho, P. M., and Lee, R. L., "Don't Suppress the Wiggles – They're Telling You Something", *Finite Element Methods for Convection Dominated Flows*, ASME Publication AMD, Vol. 34, pp. 37–61 (1979).

59. Dean, R. G., *Evaluation and Development of Water Wave Theories for Engineering Application*, prepared for U. S. Army Corp of Engineers, Coastal Engineering Research Center, (November 1974).

60. *ASME Boiler and Pressure Vessel Code*, Section III, Division 1–1974, Subsection NB, Class 1 Components.

61. *American National Standard Code for Pressure Piping*, Power Piping, ANSI B31.1–1977, Published by the American Society of Mechanical Engineers.

62. Orris, R. M., and Petyt, M., "Finite Element Study of Harmonic Wave Propagation in Periodic Structures", *Journal of Sound and Vibration*, pp. 223–236 (1974).

63. Gordon, J. L., "OUTCUR: An Automated Evaluation of Two–Dimensional Finite Element Stresses" according to ASME, Paper No. 76–WA/PVP–16, *ASME Winter Annual Meeting* (December 1976).

64. Powell, M. J. D., "An Efficient Method for Finding the Minimum of a Function of Several Variables Without Calculating Derivatives", *Computer Journal*, Vol. 7, pp. 155–162 (1964).

65. Wilson, E. L., Der Kiereghian, A., and Bayo, E., "A Replacement for the SRSS Method in Seismic Analysis", *Earthquake and Structural Dynamics*, University of California, Berkeley, Vol. 9, No. 2, p. 187 (March 1981).

66. Rankin, C. C., and Brogan, F. A., "An Element Independent Corotational Procedure for the Treatment of Large Rotations", *Journal of Pressure Vessel Technology*, Vol. 108, pp. 165–174 (May 1986).

67. Argyris, J., "An Excursion into Large Rotations", *Computer Methods in Applied Mechanics and Engineering*, Vol. 32, pp. 85–155 (1982).

68. Tse, S., Morse, I. E., and Hinkle, R. T., *Mechanical Vibrations*, Allyn and Bacon, Boston (1963).

69.   Chari, M. V. K., "Finite Element Solution of the Eddy Current Problem in Magnetic Structures, *IEEE Transactions on Power Apparatus and Systems*, Vol. PAS–93 pp. 62–72 (1974).

70.   Brauer, J. R., "Finite Element Analysis of Electromagnetic Induction in Transformers", paper A77–122–5, *IEEE Winter Power Meeting*, New York City (1977).

71.   Tandon, S. C., and Chari, M. V. K., "Transient Solution of the Diffusion Equation by the Finite Element Method", J*ournal of Applied Physics* (March 1981).

72.   Silvester, P. P., Cabayan, H. S., and Browne, B. T., "Efficient Techniques for Finite Element Analysis of Electric Machines", *IEEE Transactions on Power Apparatus and Systems*, Vol. PAS–92, pp. 1274–1281 (1973).

73.   Chari, M. V. K., and D'Angelo, J., "Finite Element Analysis of Magneto–Mechanical Devices", *Fifth International Workshop in Rare Earth–Cobalt Permanent Magnets and Their Application*, Roanoke, VA, 7–10, Paper No. V1–1 (June 1981).

74.   Anderson, O. W., "Transform Leakage Flux Program Based on the Finite Element Method", *IEEE Transactions on Power Apparatus and Systems*, Vol. PAS–92, No. 2 (1973).

75.   Zienkiewicz, O. C., Lyness, J., and Owen, D. R. J., "Three–Dimensional Magnetic Field Determination Using a Scalar Potential – A Finite Element Solution", *IEEE Transactions on Magnetics*, Vol. MAG–13, No. 5, pp. 1649–1656 (1977).

76.   Coulomb, J. L., and Meunier, G., "Finite Element Implementation of Virtual Work Principle for Magnetic for Electric Force and Torque Calculation, *IEEE Transactions on Magnetics*, Vol. Mag–2D, No. 5, pp. 1894–1896 (1984).

77.   Moon, F. C., *Magneto–Solid Mechanics*, New York, John Wiley and Sons (1984).

78.   Baker, A. J., *Finite Element Computational Fluid Mechanics*, McGraw–Hill Book Company, New York, pp. 266–284 (1983).

79. Yuan, S. NW., *Foundations of Fluid Mechanics*, Prentice–Hall International, Inc., London, pp. 71–102 (1976).

80. Clough, Ray W., and Penzien, Joseph, *Dynamics of Structures*, McGraw–Hill, New York, p. 559 (1975).

81. Allik, H., and Hughes, J. R., "Finite Element for Piezoelectric Vibration", *International Journal Numerical Methods of Engineering*, No. 2, pp. 151–157 (1970).

82. Eer Nisse, N. P. "Variational Method for Electroelastic Vibration Analysis", *IEEE Transactions on Sonics and Ultrasonics*, Vol. SU–14, No. 4 (1967).

83. Sato, J., Kawabuchi, M., and Fukumoto, A., "Dependence of the Electromechanical Coupling Coefficient on the Width–to–Thickness Ratio of Plant–Shaped Piezoelectric Transducers Used for Electronically Scanned Ultrasound Diagnostic Systems", *Journal of Acoustics Society of America* No. 66 (6), pp. 1609–1611 (1979).

84. Kinsler, E. L. et. al., *Fundamentals of Acoustics*, John Wiley and Sons, New York pp. 98–123 (1982).

85. Craggs, A., "A Finite Element Model for Acoustically Lined Small Rooms", *Journal of Sound and Vibration*, Vol. 108, No. 2, pp. 327–337.

86. Zienkiewicz, O. C., and Newton, R. E., "Coupled Vibrations of a Structure Submerged in a Compressible Fluid", *Proceedings of the Symposium on Finite Element Techniques*, University of Stuttgart, Germany (June 1969).

87. Malvern, Lawrence E., *Introduction to the Mechanics of a Continuous Medium*, Prentice–Hall, Inc., Englewood Cliffs, NJ (1969).

88. Siegal, R. and Howell, J. R., *Thermal Radiation Heat Transfer*, Second Edition, Hemisphere Publishing Corporation (1981).

89. Rivlin, R. S., "Forty Years of Nonlinear Continuum Mechanics", *Proceedings of the IX International Congress on Rheology*, Mexico, pp. 1–29 (1984).

90. Kao, B. G., and Razgunas, L., "On the Determination of Strain Energy Functions of Rubbers", *Proceedings of the VI International Conference on Vehicle Structural Mechanics*, Detroit, MI, pp. 145–154 (1986).

91. Mooney, M., "A Theory of Large Elastic Deformation", *Journal of Applied Physics*, Vol. 6, pp. 582–592 (1940).

92. Blatz, P. J., and Ko, W. L., "Application of Finite Elastic Theory to the Deformation of Rubbery Materials", *Transactions of the Society of Rheology*, Vol. 6, pp. 223–251 (1962).

93. Tsai, Stephen W., *Composites Design*, Third Edition, Section 11.6, Think Composites, Dayton, Ohio (1987).

94. Weiss, J., "Efficient Finite Element Solution of Multipath Eddy Current Problems", *IEEE Transactions on Magnetics*, Vol. MAG–18, No. 6, pp. 1710–1712 (1982).

95. Garg, V. K., and Weiss, J, "Finite Element Solution of Transient Eddy–Current Problems in Multiply–Excited Magnetic Systems", *IEEE Transactions on Magnetics*, Vol. MAG–22, No. 5, pp. 1257–1259 (1986).

96. Dvorkin, E. N., "On Nonlinear Finite Element Analysis of Shell Structures", Ph.D Thesis, Massachusetts Institute of Technology (1984).

97. Dvorkin, E. N., and Bathe, K. J., "A Continuum Mechanics Based Four–Node Shell Element for General Nonlinear Analysis", *Engineering Computations*, Vol. 1, pp. 77–88 (1984).

98. Bathe, K. J., and Dvorkin, E. N., "A Formulation of General Shell Elements – The Use of Mixed Interpolation of Tensorial Components", *International Journal for Numerical Methods in Engineering*, Vol. 22, pp. 697–722 (1986).

99. Hoit, M., and Wilson, E. L., "An Equation Numbering Algorithm Based on a Minimum Front Criteria", *Computers and Structures*, Vol. 16, pp. 225–239 (1983).

100. Cuthill, E., and McKee, J., "Reducing the Band Width of Sparse Symmetric Matrices", *Proceedings of the ACM National Conference*, New York (1969).

101. Georges, A., and McIntyre, D., "On the Application of the Minimum Degree Algorithm to Finite Element Systems", *SIAM Journal of Numerical Analysis*, Vol. 15 (1978).

102. Zienkiewicz, O. C., and Zhu, J. Z., "A Simple Error Estimator and Adaptive Procedure for Practical Engineering Analysis", *International Journal for Numerical Methods in Engineering*, Vol. 24, pp. 337–357 (1987).

103. Babuska, I., and Rheinboldt, W. C., "Analysis of Optimal Finite Element Meshes in R", *Mathematics of Computation*, Vol. 33, pp. 431–463 (1979).

104. Carnegie, W., "Vibrations of Rotating Cantilever Blading", *Journal of Mechanical Engineering Science*, Vol. 1, No. 3 (1959).

105. Bergan, P. G., and Mollestad, E., "An Automatic Time–Stepping Algorithm for Dynamic Problems", *Computer Methods in Applied Mechanics and Engineering*, Vol. 49 (1985).

106. Paris, P. C., and Sih, G. C., "Stress Analysis of Cracks", *Fracture Toughness and Testing and its Applications*, American Society for Testing and Materials, Philadelphia, STP 381, pp. 30–83 (1965).

107. O'Hara, G. J. and Belsheim, R. O., "Interim Design Values for Shock Design of Shipboard Equipment", U.S. Naval Research Laboratory, Washington D.C., *NRL Memorandum Report 1396* (1963).

108. Markovsky, A., Soules, T. F. and Vukcevich, M. R., "Mathematical and Computational Aspects of a General Viscoelastic Theory", G. E. Lighting and Research and Technical Services Operation, *Report No. 86–LRL–2021* (February 1986).

109. Scherer, G. W. and Rekhson, S. M., "Viscoelastic–Elastic Composites: I, General Theory", *Journal of the American Ceramic Society*, Vol. 65, No. 7 (1982).

110. Narayanaswamy, O. S., "A Model of Structural Relaxation in Glass", *Journal of the American Ceramic Society*, Vol. 54, No. 10, pp. 491–498 (1971).

111. Zienkiewicz, O. C., Watson, M. and King, I. P., "A Numerical Method of Visco–Elastic Stress Analysis", *International Journal of Mechanical Science*, Vol. 10, pp. 807–827 (1968).

112. Taylor, R. L., Pister, K. S. and Goudreas, G. L., "Thermochemical Analysis of Viscoelastic Solids", *International Journal for Numerical Methods in Engineering*, Vol. 2, pp. 45–59 (1970).

113. Allman, D. J., "A Compatible Triangular Element Including Vertex Rotations for Plane Elasticity Analysis", *Computers and Structures*, Vol. 19, pp. 1–8 (1984).

114. Cook, R. D., "On the Allman Triangle and a Related Quadrilateral Element", *Computers and Structures*, Vol. 22, pp. 1065–1067 (1986).

115. MacNeal, R. H. and Harder, R. L., "A Refined For–Noded Membrane Element with Rotational Degrees of Freedom", *Computers and Structures*, Vol. 28, No. 1, pp. 75–84.

116. Garvey, S. J., "The Quadrilateral Shear Panel", *Aircraft Engineering*, p. 134 (May 1951).

117. Yunus, Shah M., Pawlak, Timothy P., and Cook, R. D., "Solid Elements with Rotational Degrees of Freedom Part 1 and Part 2", *International Journal for Numerical Methods in Engineering*, Vol. 31, pp. 573–610 (1991).

118. Mohammed, O. A., "Magnetic Vector Potential Based Formulation and Computation of Nonlinear Magnetostatic Fields and Forces in Electrical Devices by Finite Elements", *Ph.D. Dissertation*, Virginia Polytechnic Institute and State University, Blacksburg, VA (May 1983).

119. Mayergoyz, I. D., "A New Scalar Potential Formulation for Three–Dimensional Magnetostatic Problems", *IEEE Transactions on Magnetics*, Vol. MAG–23, No. 6, pp. 3889–3894 (1987).

120. Biró, Oszkár and Preis, Kurt, "On the Use of the Magnetic Vector Potential in the Finite Element Analysis of Three–Dimensional Eddy Currents", *IEEE Transactions on Magnetics*, Vol. 25, No. 4, pp. 3145–3159 (July 1989).

121. Robinson, J., *Basic and Shape Sensivity Tests for Membrane and Plate Bending Finite Elements*, Robinson and Associates (January 1985).

122. Kagawa, Y., Yamabuchi, T. and Kitagami, S., "Infinite Boundary Element and its Application to a Combined Finite–Boundary Element Technique for

Unbounded Field Problems", *Boundary Elements VIII*, ed. C. A. Brebbia, Springer–Verlag, New York, NY (1986).

123. Oden, J. T. and Kikuchi, N., "Finite Element Methods for Constrained Problems in Elasticity", *International Journal for Numerical Methods in Engineering*, Vol. 18, No. 5, pp. 701–725 (1982).

124. Sussman, T. and Bathe, K. J., "A Finite Element Formulation for Nonlinear Incompressible Elastic and Inelastic Analysis", *Computers and Structures*, Vol. 26, No. 1/2, pp. 357–409 (1987).

125. Zienkiewicz, O. C., Liu, Y. C. and Huang, G. C., "Error Estimates and Convergence Rates for Various Incompressible Elements", *International Journal for Numerical Methods in Engineering*, Vol. 28, No. 9, pp. 2191–2202 (1989).

126. Huang, H. C. and Lewis, R. W., "Adaptive Analysis for Heat Flow Problems Using Error Estimation Techniques", Paper presented at the *6th International Conference on Numerical Methods in Thermal Problems*. Also University of Wales, University College of Swansea Internal Report CR/635/89 (April 1989).

127. Weber, G. G., Lush, A. M., Zavaliangos, A., and Anand, L., "An Objective Time–Integration Procedure for Isotropic Rate–Independent Elastic–Plastic Constitutive Equations", *International Journal of Plasticity*, Vol. 6, pp. 701–749 (1990).

128. Eggert, G. M. and Dawson, P. R., "A Viscoplastic Formulation with Plasticity for Transient Metal Forming", *Computer Methods in Applied Mechanics and Engineering*, Vol. 70, pp. 165–190 (1988).

129. Narayanaswami R. and Adelman, H. M., "Inclusion of Transverse Shear Deformation in Finite Element Displacement Formulations", *American Institute of Aeronautics and Astronautics Journal*, Vol. 12, No. 11, pp. 1613–1614 (1974).

130. Kaljevic, I, Saigal, S., and Ali, A., "An Infinite Boundary Element Formulation for Three–Dimensional Potential Problems", *International Journal for Numerical Methods in Engineering*, Vol. 35, No. 10, pp. 2079–2100 (1992).

131. Simo et al., "Finite Deformation Post–Buckling Analysis Involving Inelasticity and Contact Constraints", *International Journal for Numerical Methods in Engineering*, Vol. 23, pp. 779–800 (1986).

132. Parisch, H. "A Consistent Tangent Stiffness Matrix for Three–Dimensional Non–Linear Contact Analysis", *International Journal for Numerical Methods in Engineering*, Vol.28, pp. 1803–1812 (1989).

133. Bayo, "A Modified Lagrangian Formulation for the Dynamic Analysis of Constrained Mechanical Systems", *Computer Methods in Applied Mechanics and Engineering*, Vol. 71, pp. 183–195 (1988).

134. Jiang and Rodgers, "Combined Lagrangian Multiplier and Penalty Function Finite Element Technique for Elastic Impact Analysis", *Computers and Structures*, Vol. 30, pp. 1219–1229 (1988).

135. Giannakopoulos, "The Return Mapping Method for the Integration of Friction Constitutive Relations", *Computers and Structures*, Vol. 32, pp. 157–167 (1989).

136. Ridic and Owen, "A Plasticity Theory of Friction and Joint Elements", Computational Plasticity: Models, Software, and Applications, Part II, *Proceedings of the Second International Conference*, Barcelona, Spain, Pineridge Press, Swansea, pp. 1043–1062 (Editors Owen, Hinton, Ornate) (1989).

137. Wriggers, VuVan, and Stein, "Finite Element Formulation of Large Deformation Impact–Contact Problems with Friction", *Computers and Structures*, Vol. 37, pp. 319–331 (1990).

138. Stein, Wriggers and VuVan, "Models of Friction, Finite–Element Implementation and Application to Large Deformation Impact–Contact Problems", Computational Plasticity: Models, Software, and Applications, Part II, *Proceedings of the Second International Conference*, Barcelona, Spain, Pineridge Press, Swansea, pp. 1015–1041, (Editors Owen, Hinton, Ornate) (1989).

139. Yunus, S. M., Kohnke, P. C. and Saigal, S. "An Efficient Through–Thickness Integration Scheme in an Unlimited Layer Doubly Curved Isoparametric

Composite Shell Element", *International Journal for Numerical Methods in Engineering*, Vol. 28, pp. 2777–2793 (1989).

140. Geddes, E. R. "An Analysis of the Low Frequency Sound Field in Non–Rectangular Enclosures Using the Finite Element Method", *Ph.D Thesis*, Pennsylvania State University (1982).

141. Gyimesi, M., Lavers, D., Pawlak, T. and Ostergaard, D., "Application of the General Potential Formulation in the ANSYS®Program", *IEEE Transactions on Magnetics*, Vol. 29, pp. 1345–1347 (1993).

142. Rajakumar, C. and Ali, A., "A Solution Method for Acoustic Boundary Element Eigenproblem With Sound Absorption Using Lanczos Algorithm", *Proceedings of 2nd International Congress on Recent Developments in Air– and Structure–Borne Sound and Vibration*, Auburn University, AL, pp. 1001–1010 (March 4–6, 1992)

143. Nishimura, H., Isobe, M., and Horikawa, K., "Higher Order Solutions of the Stokes and the Cnoidal Waves", *Journal of the Faculty of Engineering*, The University of Tokyo, Vol. XXXIV, No. 2, Footnote on page 268 (1977).

144. Mahinthakumar, G. and Hoole, S.R.H., "A Parallelized Element by Element Jacobi Conjugate Gradients Algorithm for Field Problems and a Comparison with Other Schemes", *Applied Electromagnetics in Materials*, Vol. 1, pp. 15–28 (1990).

145. Hughes, T.J.R., Analysis of Transient Algorithms with Particular Reference to Stability Behavior, *Computation Methods for Transient Analysis*, Vol. 1, North–Holland, Amsterdam, Eds. T. Belytschko and K. J. Bathe, pp. 67–155 (1983).

146. Anand, L., "Constitutive Equations for the Rate–Dependent Deformation of Metals at Elevated Temperatures", Journal of Engineering Materials and Technology,Transactions of the ASME, Vol. 104, pp. 12–17 (1982).

147. Brown, S. B., Kim, K. H., and Anand, L., "An Internal Variable Constitutive Model for Hot Working of Metals", *International Journal of Plasticity*, Vol. 5, pp. 95–130 (1989).

148. Analysis & Design Application Co., Ltd. (ADAPCO), *Sample Cyclic Symmetry Modal Analysis Using ANSYS* (March 1986).

149. Gyimesi, M. and Lavers, J. D., "Generalized Potential Formulation for 3–D Magnetostatic Problems", *IEEE Transactions on Magnetics*, Vol. 28, No. 4 (1992).

150. Smythe, W. R., *Static and Dynamic Electricity*, McGraw–Hill Book Co., New York, NY (1950).

151. Demerdash, N. A., Nehl, T. W., Fouad, F. A. and Mohammed, O. A., "Three Dimensional Finite Element Vector Potential Formulation of Magnetic Fields in Electrical Apparatus", *IEEE Transactions on Power Apparatus and Systems*, Vol. PAS–100, No. 8, pp. 4104–4111 (1981).

152. Eggert, G. M., Dawson, P. R., and Mathur, K. K., "An Adaptive Descent Method for Nonlinear Viscoplasticity", *International Journal for Numerical Methods in Engineering*, Vol. 31, pp. 1031–1054 (1991).

153. Schweizerhof, K. H. and Wriggers, P., "Consistent Linearization for Path Following Methods in Nonlinear FE Analysis", *Computer Methods in Applied Mechanics and Engineering*, Vol. 59, pp. 261–279 (1986).

154. Zienkiewicz, O. C. and Cormeau, I. C., "Visco–plasticity – Plasticity and Creep in Elastic Solids – A Unified Numerical Solution Approach", *International Journal for Numerical Methods in Engineering*, Vol. 8, pp. 821–845 (1974).

155. Simo, J. C. and Taylor, R. L., "Consistent Tangent Operators for Rate–Independent Elastoplasticity", *Computer Methods in Applied Mechanics and Engineering*, Vol. 48, pp. 101–118 (1985).

156. Hughes, T. J. R., "Numerical Implementation of Constitutive Models: Rate–Independent Deviatoric Plasticity", published in *Theoretical Foundation for Large–Scale Computations for Nonlinear Material Behavior* (eds. S. Nemat–Nasser, R. J. Asaro and G. A. Hegemier), Martinus Nijhoff Publishers, Dordrecht, The Netherlands (1984).

157. Hughes, T. J. R. and Carnoy, E., "Nonlinear Finite Element Shell Formulation Accounting for Large Membrane Strains", *Computer Methods in Applied Mechanics and Engineering*, Vol. 39, pp. 69–82 (1983).

158. Nedelec, J.,"Mixed finite elements in R3", *Numer. Math.*, Vol.35, pp. 315–341, (1980).

159. Anand, L., "Constitutive Equations for Hot–Working of Metals", International *Journal of Plasticity*, Vol. 1, pp. 213–231 (1985).

160. Abramowitz, M. and Stegun, I. A., *Handbook of Mathematical Functions with Formulas, Graphs, and Mathematical Tables*, National Bureau of Standards Applied Mathematics Series 55, p. 966 (1972).

161. Swain, C. G. and Swain, M. S., "A Uniform Random Number Generator That is Reproducible, Hardware–Independent, and Fast", *Journal of Chemical Information and Computer Sciences*, pp. 56–58 (1980).

162. Kreyszig, Edwin, *Advanced Engineering Mathematics*, 3rd Edition, John Wiley & Sons, Inc. (1972).

163. Hoel, Paul G., *Introduction to Mathematical Statistics*, 3rd Edition, Johnn Wiley & Sons, Inc., p. 196 (1962).

164. Neter, John et al., *Applied Statistics*, Allyn and Bacon, Inc., Boston, MA (1978).

165. Hughes, T. J. R., *The Finite Element Method Linear Static and Dynamic Finite Element Analysis*, Prentice–Hall, Inc., Englewood Cliffs, NJ (1987).

166. Wilson, E. L. and Itoh, Tetsuji, "An Eigensolution Strategy for Large Systems", *Computers and Structures*, Vol. 16, No. 1–4, pp. 259–265 (1983).

167. Yokoyama, T., "Vibrations of a Hanging Timoshenko Beam Under Gravity", *Journal of Sound and Vibration*, Vol. 141, No. 2, pp. 245–258 (1990).

168. Coulomb, J. L., "A Methodology for the Determination of Global Electromechanical Quantities from a Finite Element Analysis and its Application to the Evaluation of Magnetic Forces, Torques and Stiffness", *IEEE Transactions on Magnetics*, Vol. MAG–19, No. 6, pp. 2514–2519 (1983).

169. Zienkiewicz, O. C., Emson, C., and Bettess, P., "A Novel Boundary Infinite Element", *International Journal for Numerical Methods in Engineering*, Vol. 19, pp. 393–404 (1983).

170. Damjanic, F. and Owen, D. R. J., "Mapped Infinite Elements in Transient Thermal Analysis", *Computers and Structures*, Vol. 19, No. 4, pp. 673–687 (1984).

171. Marques, J. M. M. C. and Owen, D. R. J., "Infinite Elements in Quasi–Static Materially Nonlinear Problems", *Computers and Structures*, Vol. 18, No. 4, pp. 739–751 (1984).

172. Li, Hui, Saigal, Sunil, Ali, Ashraf, and Pawlak, Timothy P., "Mapped Infinite Elements for 3–D Vector Potential Magnetic Problems", *International Journal for Numerical Methods in Engineering*, Vol. 37, pp. 343–356 (1994).

173. Gyimesi, M., Lavers, J., Pawlak, T., and Ostergaard,D., "Biot–Savart Integration for Bars and Arcs", *IEEE Transactions on Magnetics*, Vol. 29, No. 6, pp. 2389–2391 (1993).

174. Forde, W. R. B. and Stiemer S. F., "Improved Arc Length Orthogonality Methods for Nonlinear Finite Element Analysis", *Computers & Structures*, Vol. 27, No. 5, pp. 625–630 (1987).

175. Nour–Omid B. and Rankin C. C., "Finite Rotation Analysis and Consistent Linearization Using Projectors", *Computer Methods in Applied Mechanics and Engineering*, Vol. 93, pp. 353–384 (1991).

176. Emson, C.R.I. and Simkin, J., "An Optimal Method for 3–D Eddy Currents", *IEEE Transactions on Magnetics*, Vol. MAG–19, No. 6, pp. 2450–2452 (1983).

177. Viollet, P.L., "The Modelling of Turbulent Recirculating Flows for the Purpose of Reactor Thermal–Hydraulic Analysis", *Nuclear Engineering and Design*, 99, pp. 365–377 (1987)

178. Launder, B.E., Spalding, D.B, "The Numerical Computation of Turbulent Flows", *Computer Methods In Applied Mechanics and Engineering*, Vol. 3, pp 269–289 (1974).

179. Rice, J.G., Schnipke, R.J.,"A Monotone Streamline Upwind Finite Element Method for Convection–Dominated Flows", *Computer Methods in Applied Mechanics and Engineering*, vol 48, pp.313–327 (1985).

180. Harlow, F.H., Amsden, A.A., "A Numerical Fluid Dynamics Calculation Method for All Flow Speeds", *Journal of Computational Physics*, Vol 8. (1971).

181. White, F.M., *Viscous Fluid Flow*, Second Edition, McGraw–Hill, New York (1991).

182. Patankar, S.V., *Numerical Heat Transfer and Fluid Flow*, Hemisphere, New York (1980).

183. Hestenes, Magnus R, and Stiefel, Eduard, "Methods of Conjugate Gradients for Solving Linear System", *Journal of Research of the National Bureau of Standards*, Vol 49, No.6 (1952).

184. Reid, J.K.,"On the Method of Conjugate Gradients for the Solution of Large Sparse Sets of linear Euqations", *Proceedings of the Conference on Large Sparse Sets of Linear Equations* (Ed. J.K. Reid). Academic Press, pp. 231–254 (1971) .

185. Elman, H.C., "Preconditioned Conjugate–Gradient Methods for Nonsymmetric Systems of Linear Equations", *Advances In Computer Methods For Partial Differential Equations IV*, Vichnevetsky, R., Stepleman, ed., IMACS, pp. 409–413 (1981).

186. More, J.J. and Wright, S.J., *Optimization Software Guide*, SIAM, Philadelphia, p. 13 (1993).

187. Bilger, R.W., "A Note on Favre Averaging in Variable Density Flows", *Combustion Science and Technology*, Vol. 11, pp. 215–217 (1975).

188. McCalla, M. C., *Fundamentals of Computer–Aided Circuit Simulation*, Kluwer Academic (1988).

189. Vermeer, P.A. and Verrujit, A., "An Accuracy Condition for Consolidation by Finite Elements", *International Journal for Numerical and Analytical Methods in Geomechanics*, Vol. 5, pp. 1–14 (1981).

190. Tsai, Stephen W. and Hahn, H. Thomas, *Introduction to Composite Materials*, Section 7.2, Technomic Publishing Company (1980).

191. Box, G.E.P., Hunter, W.G., and Hunter, J.S., *Statistics for Experimenters*, John Wiley & Sons, Chapter 10 (1978).

192. Szabo, Barna and Babuska, Ivo, *Finite Element Analysis*, John Wiley & Sons (1991)

193. Chen, M.T. and Ali, A., Random Vibration Analysis: Closed–Form Solutions for Piecewise Linear PSD in Log–Log Scale, *Computers and Structures*, (under preparation).

194. Harichandran, R.S., Closed–Form Solutions for Random Vibration Under Propagating Excitation, *Earthquake Engineering and Structural Dynamics*, Vol. 15, No. 7, pp. 889–899 (1991).

195. Grimes, R.G., Lewis, J.G., and Simon, H.D., A Shifted Block Lanczos Algorithm for Solving Sparse Symmetric Generalized Eigenproblems, *SIAM Journal Matrix Analysis Applications*, Vol. 15 (1), pp. 228–272 (1994).

196. Rajakumar, C. and Rogers, C.R., The Lanczos Algorithm Applied to Unsymmetric Generalized Eigenvalue Problems, *International Journal for Numercial Method in Engineering*, Vol. 32, pp. 1009–1026 (1991).

197. Gartling, D.K., *"Finite Element Methods for Non–Newtonian Flows"*, report SAND92–0886, CFD Dept., Sandia National Laboratories, Albuquerque, NM (1992).

198. Crochet, M.J., Davies, A.R., and Walters, K., *Numerical Simulation of Non–Newtonian Flow*, Elsevier Science Publishers B.V. (1984).

199. Hallquist, John O., *LS–DYNA3D Theoretical Manual*, Livermore Software Technology Corporation (1994)

200. Biro, O., Preis, K., Magele, C., Renhart, W., Richter, K.R., Vrist, G., "Numerical Analysis of 3D Magnetostatic Fields", *IEEE Transaction on Magnetics*, Vol. 27, No. 5, pp. 3798–3803 (1991).

201. Gyimesi, M. and Ostergaard, D., "Non–Conforming Hexahedral Edge Elements for Magnetic Analysis", (ANSYS, Inc. internal development), submitted to COMPUMAG, Rio (1997).

202. Gyimesi, M. and Lavers, D., "Application of General Potential Formulation to Finite Elements", Second Japan Hungarian Joint Seminar on Electromagnetics, Sapporo, Japan (1992). *Applied Electromagnetics in Materials and Computational Technology*, ed. T. Honma, I. Sebestyen, T. Shibata. Hokkaido University Press (1992).

203. Preis, K., Bardi, I., Biro, O., Magele, C., Vrisk G., and Richter, K. R., "Different Finite Element Formulations of 3–D Magnetostatic Fields", *IEEE Transactions on Magnetics*, Vol. 28, No. 2, pp. 1056–1059 (1992).

204. Nedelec, J.C., "Mixed Finite Elements in R3", *Numerical Methods*, Vol. 35, pp. 315–341 (1980).

205. Van Welij, J.S., "Calculation of Eddy Currents in Terms of H on Hexahedra", *IEEE Transactions on Magnetics*, Vol. 18, pp. 431–435 (1982).

206. Kameari, A., "Calculation of Transient 3D Eddy Current Using Edge Elements", *IEEE Transactions on Magnetics*, Vol. 26, pp. 466–469 (1990).

207. Jin, J., *The Finite Element Method in Electromagnetics*, John Wiley and Sons, Inc., New York (1993)..

208. Whitney, H., *Geometric Integration Theory*, Princeton U. P. (Princeton) (1957).

209. Stratton, J.A., *Electromagnetic Theory*, Section 1.14, McGraw–Hill, New York (1941).

210. Mitzner, K.M., "An Integral Equation Approach to Scattering From a Body of Finite Conductivity", *Radio Science*, Vol. 2, pp. 1459–1470 (1967).

211. Mittra, R. and Ramahi, O., "Absorbing Boundary Conditions for the Direct Solution of Partial Differential Equations Arising in Electromagnetic Scattering Problems", *Finite Element Finite Difference Methods in Electromagnetic Scattering*, Vol. II, pp. 133–173 (1989).

212. Peric, D. and Owen, D.R.J., "Computational Model for 3–D Contact Problems with Friction Based on the Penalty Method", *International Journal for Numercial Method in Engineering,* Vol. 35, pp. 1289–1309 (1992).

213. Cescotto, S. and Charilier, R., "Frictional Contact Finite Elements Based on Mixed Variational Principles", *International Journal for Numercial Method in Engineering,* Vol. 36, pp. 1681–1701 (1992).

214. Cescotto, S. and Zhu, Y.Y., "Large Strain Dynamic Analysis Using Solid and Contact Finite Elements Based on a Mixed Formulation – Application to Metalforming", *Journal of Metals Processing Technology,* Vol. 45, pp. 657–663 (1994).

215. Simo, J.C. and Laursen, T.A., "An Augmented Lagrangian Treatment of Contact Problems Involving Friction", *Computers and Structures,* Vol. 42, pp. 97–116 (1992).

216. Laursen, T.A. and Simo, J.C., "Algorithmic Symmetrization of Coulomb Frictional Problems Using Augmented Lagrangians", *Computers Methods in Applied Mechanics and Engineering,* Vol. 198, pp. 133–146 (1993).

217. Barry, A., Bielak, J., and MacCamy, R.C., "On absorbing boundary conditions for wave propagations", *Journal of Computational Physics.,* Vol. 79(2), pp. 449–468 (1988).

218. Kallivokas, L.F., Bielak J. and MacCamy, R.C., "Symmetric Local Absorbing Boundaries in Time and Space", *Journal of Engineering Mechanics,* Vol. 117(9), pp. 2027–2048 (1991).

219. Hughes, T.J.R., "Generalization of Selective Integration Procedures to Anisotropic and Nonlinear Media", *International Journal for Numerical Methods in Engineering,* Vol. 15, No. 9, pp. 1413–1418 (1980).

220. Nagtegaal, J.C., Parks, D.M., and Rice, J.R., "On Numerically Accurate Finite Element Solutions in the Fully Plastic Range", *Computer Methods in Applied Mechanics and Engineering,* Vol. 4, pp. 153–178 (1974).

221. Gyimesi, Miklos and Ostergaard, Dale, "Mixed Shape Non–Conforming Edge Elements", *CEFC '98,* Tucson, AZ (1998).

222. Ostergaard, Dale and Gyimesi, Miklos, "Analysis of Benchmark Problem TEAM20 with Various Formulations", *Proceedings of the TEAM Workshop*, COMPUMAG Rio, pp. 18–20 (1997).

223. Ostergaard, Dale and Gyimesi, Miklos, "Magnetic Corner: Accurate Force Computations", *Analysis Solutions*, Vol 1, Issue 2, pp. 10–11 (1997–98).

224. Brooks, A.N. and Hughes, T.J.R., "Streamline Upwind/Petro–Galkerin Formulation for Convection Dominated Flows with Particular Emphasis on the Incompressible Navier–Stokes Equations", *Computer Methods in Applied Mechanics and Engineering*, Vol. 32, pp. 199–259 (1982).

225. Demerdash, N.A. and Arkadan, A.A., "Notes on FEM Modeling of Permanent Magnets in Electrical Devices", *FEM for Electromagnetic Applications*,Section 3, p.26–7 (17),(19) (1981).

226. Demerdash, N.A. and Nehl, T.W., "Determination of Inductances in Ferrite Type Magnet Electric Machinery by FEM", *IEEE Trans. on MAG*, Vol.18, pp.1052–54, (1982).

227. Nehl, T.W., Faud, F.A. and Demerdash, N.A., "Determination of Saturated Values of Rotation Machinery Incremental and Apparent Inductances by an Energy Perturbation Method", *IEEE Trans. on PAS*, Vol.101. pp.4441–51 (1982).

228. Gyimesi, Miklos, Zhulin, Vladimir and Ostergaard, Dale, "Particle Trajectory Tracing in ANSYS", Fifth International Conference on Charged Particle Optics, Delft University, Netherlands. To be Published in *Nuclear Instruments and Methods in Physics Research*, Section A (1998).

229. Gyimesi, Miklos and Ostergaard, Dale, "Inductance Computation by Incremental Finite Element Analysis", *CEFC 98*, Tucson, Arizona (1998)

230. Gyimesi, M. and Lavers, D., "Electromagnetic Particle Trajectory Tracing" Unpublished Report, Available Upon Request from ANSYS, Inc. (1994).

231. Demerdash, N.A. and Gillott, D.H., "A New Approach for Determination of Eddy Currents and Flux Penetration in Nonlinear Ferromagnetic Materials", *IEEE Trans. on Magnetics*, Vol. 10, pp. 682–685 (1974).

232. Flanagan, D.P. and Belytschko, T., "A Uniform Strain Hexahedron and Quadrilateral with Orthogonal Hourglass Control", *International Journal for Numerical Methods in Engineering*, Vol. 17, pp. 679–706 (1981).

233. Vogel, F., "Topological Optimization of Linear–Elastic Structures with ANSYS 5.4.", *NAFEMS Conference on Topological Optimization* (1997).

234. Mlejnek, H.P. and Schirrmacher, R., "An Engineer's Approach to Optimal Material Distribution and Shape Finding", *Computer Methods in Applied Mechanics and Engineering*, Vol. 106, pp. 1–26 (1993).

235. Bendsoe, M.P. and Kikucki, N., "Generating Optimal Topologies in Structural Design Using a Homogenization Method", *Computer Methods in Applied Mechanics and Engineering*, Vol. 71, pp. 197–224 (1988).

236. Bonet, Javier and Wood, Richard D., *Nonlinear Continuum Mechanics for Finite Element Analysis*, Cambridge University Press (1997).

237. Simo, J.C. and Vu–Quoc, L., "A Three Dimensional Finite Strain Rod Model. Part II: Computational Aspects", *Computer Methods in Applied Mechanics and Engineering*, Vol. 58, pp. 79–116 (1986).

238. Ibrahimbegovic, Adnan, "On Finite Element Implementation of Geometrically Nonlinear Reissner's Beam Theory: Three–dimensional Curved Beam Elements", *Computer Methods in Applied Mechanics and Engineering*, Vol. 122, pp. 11–26 (1995).

239. Vago, Istvan and Gyimesi, Miklos, *Electromagnetic Fields*, Published by Akademiiai Kiado, Budapest, Hungary (1998).

240. Flugge, S., *Encyclopedia of Physics*, Vol. 16, "Electric Fields and Waves", Springer, Berlin (1958).

241. Lagally, M., Vorlesungen uber Vektorrechnung, Geest u. Portig, Peipzip (1964).

242. Flanagan, D.P. and Belytschko, T., "A Uniform Strain Hexahedron and Quadrilateral with Orthogonal Hourglass Control", *International Journal for Numerical Methods in Engineering*, Vol. 17, pp. 679–706 (1981).

243. Calllen, H.B., *Thermodynamics and Introduction to Thermostatistics*, 2nd Edition, Wiley & Sons, New York, NY, p. 84 (1985).

244. Chaboche, J.L., "Equations for Cyclic Plasticity and Cyclic Viscoplasticity", *International Journal of Plasticity*, Vol. 7, pp. 247–302 (1989).

245. Chaboche, J.L., "On Some Modifications of Kinematic Hardening to Improve the Description of Ratcheting Effects", *International Journal of Plasticity*, Vol. 7, pp. 661–678 (1991).

246. Timoshenko, *"Theory of Elastic Stability"*, McGraw Hill Book Company (1961).

247. Schulz, M. and Fillippou, F. C.., *"Generalized Warping Torsion Formulation"*, Journal of Engineering Mechanics, pp. 339–347 (1998).

248. Gyimesi, M. and Ostergaard, D., "Electro–Mechanical Capacitor Element for MEMS Analysis in ANSYS", Proceedings of Modelling and Simulation of Microsystems Conference, Puerto Rico, pp. 270 (1999).

249. Gyimesi, M. and Ostergaard, D., "Capacitance Computation with Ammeter Element", University of Toronto, Department of Electrical Engineering, Unpublished Report (available upon request from ANSYS, Inc.) (1993).

250. Gyimesi, M. and Lavers, D., "Open Boundary Problems", University of Toronto, Department of Electrical Engineering, Unpublished Report (available upon request from ANSYS, Inc.) (1992).

251. Hieke, A., Siemens and IBM, "ANSYS APDL for Capacitance", Proceedings from 'Second International Conference on Modeling and Simulation of Microsystems, Semiconductors, Sensors and Actuators' San Juan, Puerto Rico, pp. 172, (1999).

252. Simo, J.C. and Hughes, T.J.R., *Computational Inelasticity*, Springer–Verlag (1997).

253. Voce, E., "Metallurgica", Col. 51, pp. 219 (1955).

254. Press, W.H., *Numerical Recipes in C: The Art of Scienfitic Computing*, Cambridge University Press (1993).

255. Gyimesi, M., Lavers, D., Ostergaard, D., and Pawlak, T., "Hybrid Finite Element – Trefftz Method for Open Boundary Anslysis", COMPUMAG, Berlin 1995, *IEEE Transactions on Magnetics*, Vol. 32, No. 3, pp. 671–674 (1996).

256. Gyimesi, M. and Lavers, D., "Application of the Trefftz Method to Exterior Problems", University of Toronto, Department of Electrical Engineering, unpublished report. Available upon request from ANSYS, Inc. (1992).

257. Gyimesi, M. and Lavers, D., "Application of the Trefftz Method to Exterior Problems", University of Toronto, Department of Electrical Engineering, unpublished report. Available upon request from ANSYS, Inc. (1993).

258. Gyimesi, M. and Lavers, D., "Implementation to the Exterior Trefftz Element", University of Toronto, Department of Electrical Engineering, unpublished report. Available upon request from ANSYS, Inc. (1993).

259. Trefftz, E., "Ein Gegenstuck zum Ritz'schen Verfahren", Proceedings of the Second International Congress on Applied Mechanics, Zurich (1926).

260. Trefftz, E., "Mechanik det elastischen Korper", In Vol. VI of Handbuch der Physik, Berlin (1928). Translated from Matematicheskais teoriia Uprognosti, L. GTTI (1934).

261. Herrera, I., "Trefftz Method" (in progress), *Boundary Element Methods*, Vol. 3, (Wiley), New York (1983).

262. Zienkiewicz, O.C., "The Generalized Finite Element Method and Electromagnetic Problems", COMPUMAG Conference (1978).

263. Zielinski, A.P. and Zienkiewicz, O.C., "Generalized Finite Element Analysis with T–Complete Boundary Solution Function", *International Journal for Numerical Methods in Engineering*, Vol. 21, pp. 509–528 (1985).

264. Zienkiewicz, O.C., Kelly, D.W., and Bettess, P., "The Coupling of the Finite Element Method and Boundary Solution Procedures", *International Journal for Numerical Methods in Engineering*, Vol. 11, pp. 355–375 (1977).

265. Zienkiewicz, O.C., Kelly, D.W., and Bettess, P., "Marriage a la mode – The Best of Both Worlds (Finite Element and Bpoundary Integrals)", in *Energy Methods in Finite Element Analysis*, John Wiley, New York (1979).

266. Jirousek, J. and Guex, L., "The Hybrid–Trefftz Finite Element Model and its Application to Plate Bending", *International Journal for Numerical Methods in Engineering*, Vol. 23, pp. 651–693 (1986).

267. Mayergoyz, I.D., Chari, M.V.C., and Konrad, A., "Boundary Galerkin's Method for Three–Dimensional Finite Element Electromagnetic Field Computation", *IEEE Transactions on Magnetics*, Vol. 19, No. 6, pp. 2333–2336 (1983).

268. Chari, M.V.K., "Electromagnetic Field Computation of Open Boundary Problems by Semi–Analytic Approach", *IEEE Transactions on Magnetics*, Vol. 23, No. 5, pp. 3566–3568 (1987).

269. Chari, M.V.K. and Bedrosian, G., "Hybrid Harmonic/Finite element Method for Two–Dimensional Open Boundary Problems", *IEEE Transactions on Magnetics*, Vol. 23, No. 5, pp. 3572–3574 (1987)

270. Arruda, E.M. and Boyce, M.C., "A Three–dimensional Constitutive Model for the Large STretch Behavior of Rubber Elastic Materials", *Journal of the Mechanics and Physics of Solids*, Vol. 41 (2), pp. 389–412 (1993).

271. Bergstrom, J.S. and Boyce, M.C., "Constitutive Modeling of the Large Strain Time–dependent Behavior of Elastomers", *Journal of the Mechanics and Physics of Solids*, Vol. 45 (5), pp. 931–954 (1998).

272. Glass, M.W., "Chaparral – A library package for solving large enclosure radiation heat transfer problems", Sandia National Laboratories, Albuquerque, NM (1995)

273. Diaz, A.R. and Kikucki, N., "Solutions to Shape and Topology Eigenvalue Optimization Problems using a Homogenization Method", *International Journal for Numerical Methods in Engineering*, Vol. 35, pp 1487–1502 (1992).

274. Ladeveze, P. and Leguillon, D., "Error estimation procedure in the finite element method and applications", *SIAM Journal of Numerical Analysis*, Vol. 20 (3), pp. 483–509 (1983).

275. Synge, J.L., The Hypercircle in Mathematical Physics, Cambridge University Press (1957).

276. Cohen, M.F. and Greenberg, D.P., "The Hemi–Cube: A Radiosity Solution for Complex Environments", *Computer Graphics*, Vol. 19, No. 3, pp. 31–40 (1985).