

R

References (in progress)

Collected references for most Chapters (except those in progress) for books

Introduction to Finite Element Methods

Advanced Finite Element Methods

Nonlinear Finite Element Methods

Margin letters are to facilitate sort; will be removed on completion.

References

A

- [1] Abramowitz, M. and Stegun, L. A. (eds.), *Handbook of Mathematical Functions with Formulas, Graphs and Mathematical Tables*, Applied Mathematics Series 55, Natl. Bur. Standards, U.S. Department of Commerce, Washington, D.C., 1964; reprinted by Wiley, 1993.
- [2] Abu-Gazaleh, B. N., Analysis of plate-type prismatic structures, *Ph. D. Dissertation*, Dept. of Civil Engineering, Univ. of California, Berkeley, CA, 1965.
- [3] Adini, A., Analysis of shell structures by the finite element method, *Ph. D. Dissertation*, Dept. of Civil Engineering, University of California, Berkeley, CA., 1961.
- [4] Allman, D. J., Triangular finite elements for plate bending with constant and linearly varying bending moments, *Proc. IUTAM Conf. on High Speed Computing of Elastic Structures*, Liège, Belgium, 105–136, 1970.
- [5] Allman, D. J., Evaluation of the constant strain triangle with drilling rotations, *Int. J. Numer. Meth. Engrg.*, **26**, 2645–2655, 1988.
- [6] Alvin, K., de la Fuente, H. M., Haugen, B. and Felippa, C.A., Membrane triangles with corner drilling freedoms: I. The EFF element, *Finite Elem. Anal. Des.*, **12**, 163–187, 1992.
- [7] Anonymous, The NASTRAN Theoretical Manual, NASA SP-221, 1970; The NASTRAN User's Manual, NASA SP-222, 1970; The NASTRAN Programmer's Manual, NASA SP-223, 1970; The NASTRAN Demonstration Problem Manual, NASA SP-223, 1970.
- [8] Argyris, J. H. and Kelsey, S., *Energy Theorems and Structural Analysis*, London, Butterworth, 1960; Part I reprinted from *Aircr. Engrg.*, **26**, Oct-Nov 1954 and **27**, April-May 1955.
- [9] Argyris, J. H., Kelsey, S. and Kamel, H., Matrix methods of structural analysis — a precis of recent developments, in *AGARDograph 72: Matrix Methods of Structural Analysis*, ed. by B. M. Fraeijs de Veubeke, Pergamon Press, Oxford, 1–164, 1964.
- [10] Argyris J. H., Continua and discontinua, *Proceedings 1st Conference on Matrix Methods in Structural Mechanics*, AFFDL-TR-66-80, Air Force Institute of Technology, Dayton, Ohio, 10–170, 1965.
- [11] Archer, J. S., Consistent mass matrix for distributed mass systems, *J. Str. Div. Proc. ASCE*, **89**, 161–178, 1963.
- [12] Archer, J. S., Consistent mass matrix formulation for structural analysis using finite element techniques, *AIAA J.*, **3**, 1910–1918, 1965.
- [13] Atluri, S. N., Gallagher, R. N. and Zienkiewicz, O. C., (eds.), *Hybrid and Mixed Finite Element Methods*, Wiley, New York, 1983.

B

- [14] Ballarini, R., The Da Vinci-Bernoulli-Euler beam theory?, *Mech. Engrg. Magazine Online*, 2003. Available from <http://memagazine.org/contents/current/webonly/webex418.html>

- [15] Bathe, K.-J., *Finite Element Procedures in Engineering Analysis*, Prentice Hall, Englewood Cliffs, NJ, 1982.
- [16] Batoz, J. L., An explicit formulation for an efficient triangular plate-bending element. *Int. J. Numer. Meth. Engrg.*, **18**, 1077–1089, 1982.
- [17] Bathe, K.-J. and Dvorkin, E. N., A four-node plate bending element based on Mindlin-Reissner plate theory and a mixed interpolation, *Int. J. Numer. Meth. Engrg.*, **21**, 367–383, 1985.
- [18] Bazeley, G. P., Cheung, Y. K., Irons, B. M. and Zienkiewicz, O. C., Triangular elements in plate bending – conforming and nonconforming solutions, in *Proc. 1st Conf. Matrix Meth. Struc. Mech.*, ed. by J. Przemieniecki et. al., AFFDL-TR-66-80, Air Force Institute of Technology, Dayton, Ohio, 1966, 547–576.
- [19] Beer, F. P. and Johnston, E. R., *Mechanics of Materials*, McGraw-Hill, 2nd ed. 1992.
- [20] Belytschko, T., Stolarski, H., Liu, W. K., Carpenter, N. and Ong, J., Stress projection for membrane and shear locking in finite elements, *Comp. Meths. Appl. Mech. Engrg.*, **51**, 221–258, 1985.
- [21] Belytschko, T. and Mullen, R., On dispersive properties of finite element solutions, in *Modern Problems in Elastic Wave Propagation*, ed. by J. Miklowitz and J. D. Achenbach, Wiley, New York, 67–82, 1978.
- [22] Belytschko, T., Liu, W. K., and Engelmann, B. E., The gamma elements and related developments, in T. J. R. Hughes and E. Hinton (eds.), *Finite Element Methods for Plate and Shell Structures, Vol. I: Element Technology*, Pineridge Press, Swansea, U.K., 316–347, 1986
- [23] Bellman, R., *Introduction to Matrix Analysis*, McGraw-Hill, New York, 1970.
- [24] Belytschko, T. and Hughes, T. J. R., *Computational Methods for Transient Analysis*, Elsevier Sci., Ltd., 1983.
- [25] Bergan, P. G. and Hanssen, L., A New Approach for Deriving ‘Good’ Finite Elements, in *The Mathematics of Finite Elements and Applications – Volume II*, ed. by J. R. Whiteman, Academic Press, London, 483–497, 1976.
- [26] Bergan, P. G., Finite elements based on energy orthogonal functions, *Int. J. Numer. Meth. Engrg.*, **15**, 1141–1555, 1980.
- [27] Bergan, P. G., Nygård, M. K., Finite elements with increased freedom in choosing shape functions, *Int. J. Numer. Meth. Engrg.*, **20**, 643–664, 1984.
- [28] Bergan, P. G. and Felippa, C. A., A triangular membrane element with rotational degrees of freedom, *Comp. Meths. Appl. Mech. Engrg.*, **50**, 25–69, 1985.
- [29] Bergan, P. G., and Nygård, M. K., Nonlinear shell analysis using free formulation finite elements, *Proc. Europe-US Symposium on Finite Element Methods for Nonlinear Problems*, Springer-Verlag, 1986.
- [30] Bickford, W. B. B., *Advanced Mechanics of Materials*, Addison Wesley Longman, 1998.
- [31] Bogner, F. K., Fox, R. L. and Schmidt Jr., L. A., The generation of interelement compatible stiffness and mass matrices by the use of interpolation formulas, *Proc. Conf. on Matrix Methods in Structural Mechanics*, WPAFB, Ohio, 1965, in *AFFDL TR 66-80*, 397–444, 1966.
- [32] Boley, B. A. and Wiener, J. H., *Theory of Thermal Stresses*, Wiley, New York, 1960.
- [33] Boresi, A. P., Schmidt, R. J. and Sidebottom, O. M., *Advanced Mechanics of Materials*, 5th ed., Wiley, 1993.
- [34] Born, M. and Huang, K., *Dynamical Theory of Crystal Lattices*, Oxford, London, 1954.
- [35] Brillouin, L., *Wave Propagation in Periodic Structures*, Dover, New York, 1946.

- [36] Carr, A. J., A refined finite element analysis of thin shell structures including dynamic loadings, *Ph. D. Dissertation*, Department of Civil Engineering, University of California at Berkeley, Berkeley, CA, 1968.
- [37] Ceruzzi, P. E., *A History of Modern Computing*, The MIT Press, Cambridge, MA, 1998.
- [38] Chandrasekhar, S., *Radiative Transfer*, Dover, New York, 1960.
- [39] Clough, R. W., The finite element method in plane stress analysis, *Proc. 2nd ASCE Conf. on Electronic Computation*, Pittsburgh, Pa, 1960.
- [40] Clough, R. W., The stress distribution of Norfolk Dam, Univ. of California at Berkeley, *Inst. Res. Rept.*, Ser. 100, **19**, March 1962, rev. August 1962.
- [41] Clough, R. W., The finite element method in structural mechanics, in *Stress Analysis*, ed. by O. C. Zienkiewicz and G. S. Holister, Wiley, London, 85–119, 1965.
- [42] Clough, R. W. and Tocher, J. L., Finite Element Stiffness Matrices for the Analysis of Plate Bending. In *Proceedings 1st Conference on Matrix Methods in Structural Mechanics*, AFFDL-TR-66-80, Air Force Institute of Technology, Dayton, Ohio, 515–547, 1966.
- [43] Clough, R. W., Analysis of structural vibrations and dynamic response, in *Recent Advances in Matrix Methods of Structural Analysis and Design*, ed by R. H. Gallagher, Y. Yamada and J. T. Oden, University of Alabama Press, Huntsville, AL, 441–486, 1971.
- [44] Clough, R. W. and Penzien, J., *Dynamics of Structures*, MacGraw-Hill, 1975; 2nd ed., 1993.
- [45] Clough, R. W., The finite element method – a personal view of its original formulation, in *From Finite Elements to the Troll Platform – the Ivar Holand 70th Anniversary Volume*, ed. by K. Bell, Tapir, Norway, 89–100, 1994.
- [46] Clough, R. W. and Wilson, E. L., Early finite element research at Berkeley, Proc. 5th US National Conf. Comp. Mech., Boulder, CO, August 1999.
- [47] Clough, R. W., The finite element method after twenty-five years: a personal view, *Computers & Structures*, **12**, 361–370, 1980.
- [48] Clough, R. W., The finite element method – a personal view of its original formulation, in *From Finite Elements to the Troll Platform – the Ivar Holand 70th Anniversary Volume*, ed. by K. Bell, Tapir, Norway, 89–100, 1994.
- [49] Cook, R. D., Malkus, D. S. and Plesha, M. E., *Concepts and Application of Finite Element Methods*, 3rd ed., Wiley, New York, 1989.
- [50] Cools, R., Constructing cubature formulas - the science behind the art, *Acta Numerica*, Cambridge University Press, **6**, 1–54, 1999.
- [51] Cools, R., Monomial cubature rules since “Stroud”: a compilation — Part 2. *J. Comput. Appl. Math.*, **112**, 21–27, 1999.
- [52] Cools, R., An encyclopædia of cubature formulas, *J. Complexity*, **19**, 445–453, 2003.
- [53] Courant, R. and Hilbert, D., *Methoden der Mathematischen Physik*, Vol. 1, Springer, Berlin, 1937.
- [54] Courant, R., Variational methods for the solution of problems in equilibrium and vibrations, *Bull. Amer. Math. Soc.*, **49**, 1–23, 1943; reprinted in *Int. J. Numer. Meth. Engrg.*, **37**, 643–645, 1994.
- [55] Coxeter, H.S.M., Barycentric coordinates, §13.7 in *Introduction to Geometry*, 2nd ed., Wiley, New York, 216–221, 1969.
- [56] Crandall, S. H., *Engineering Analysis: A Survey of Numerical Procedures*, McGraw-Hill, New York, 1958.
- [57] Crisfield, M. A., A four-noded thin plate bending element using shear constraints – a modified version of Lyons’ element, *Comp. Meths. Appl. Mech. Engrg.*, **39**, 93–120, 1983.

- [58] Cross, H., Analysis of continuous frames by distributing fixed-end moments, Proceedings American Society of Civil Engineers (ASCE), 919–928, 1930.

D

- [59] Dhatt, G., An efficient triangular shell element, *AIAA J.*, **8**, No. 11, 2100–2102, 1970.
- [60] Doherty, W. P., Wilson E. L. and Taylor, R. L., Stress analysis of axisymmetric solids utilizing higher order quadrilateral finite elements, SESM Report 69-3, Department of Civil Engineering, University of California, Berkeley, 1969.
- [61] Duncan, W. J. and Collar, A. R., A method for the solution of oscillations problems by matrices, *Phil. Mag.*, Series 7, **17**, 865–885, 1934.
- [62] Duncan, W. J. and Collar, A. R., Matrices applied to the motions of damped systems, *Phil. Mag.*, Series 7, **19**, 197–214, 1935.

E

- [63] Edelsbrunner, H., *Geometry and Topology for Mesh Generation*, Cambridge Univ. Press, Cambridge, 2001.
- [64] Egeland, O. and Araldsen, H., SESAM-69: A general purpose finite element method program, *Computers & Structures*, **4**, 41–68, 1974.
- [65] Ergatoudis, J., Irons, B. M. and Zienkiewicz, O. C., Curved, isoparametric, “quadrilateral” elements for finite element analysis, *Int. J. Solids Struct.*, **4**, 31–42, 1968.

F

- [66] Farhat, C., and Roux, F. X., Implicit Parallel Processing in Structural Mechanics, *Computational Mechanics Advances*, **2**, No. 1, pp. 1–124, 1994.
- [67] Felippa, C. A., Refined finite element analysis of linear and nonlinear two-dimensional structures, *Ph.D. Dissertation*, Department of Civil Engineering, University of California at Berkeley, Berkeley, CA, 1966.
- [68] Felippa, C. A. and Clough R. W., The finite element method in solid mechanics, in *Numerical Solution of Field Problems in Continuum Physics*, ed. by G. Birkhoff and R. S. Varga, SIAM–AMS Proceedings II, American Mathematical Society, Providence, R.I., 210–252, 1969.
- [69] Felippa, C. A., Solution of equations with skyline–stored symmetric coefficient matrix, *Computers & Structures*, **5**, 13–25, 1975.
- [70] Felippa, C. A., Iterative procedures for improving penalty function solutions of algebraic systems, *Int. J. Numer. Meth. Engrg.*, **12**, 821–836, 1978.
- [71] Felippa, C. A., The extended free formulation of finite elements in linear elasticity, *J. Appl. Mech.*, **56**, 609–616, 1989.
- [72] Felippa, C. A. and Militello, C., Developments in variational methods for high performance plate and shell elements, in *Analytical and Computational Models for Shells*, CED Vol. 3, Eds. A. K. Noor, T. Belytschko and J. C. Simo, The American Society of Mechanical Engineers, ASME, New York, 191–216, 1989.
- [73] Felippa, C. A., The extended free formulation of finite elements in linear elasticity, *J. Appl. Mech.*, **56**, 609–616, 1989.
- [74] Felippa, C. A., Parametrized multifield variational principles in elasticity: II. Hybrid functionals and the free formulation, *Comm. Appl. Numer. Meth.*, **5**, 79–88, 1989.
- [75] Felippa, C. A., Militello, C., Membrane triangles with corner drilling freedoms: II. The ANDES element, *Finite Elem. Anal. Des.*, **12**, 189–201, 1992.

- [76] Felippa, C. A. and Alexander, S., Membrane triangles with corner drilling freedoms: III. Implementation and performance evaluation, *Finite Elem. Anal. Des.*, **12**, 203–239, 1992.
- [77] Felippa, C. A., A survey of parametrized variational principles and applications to computational mechanics, *Comp. Meths. Appl. Mech. Engrg.*, **113**, 109–139, 1994.
- [78] Felippa, C. A., Haugen, B. and Militello, C., From the individual element test to finite element templates: evolution of the patch test. *Int. J. Numer. Meth. Engrg.*, **38**, 199–229,
- [79] Felippa, C. A., Parametrized unification of matrix structural analysis: classical formulation and d-connected mixed elements, *Finite Elem. Anal. Des.*, **21**, 45–74, 1995.
- [80] Felippa, C. A., Recent developments in parametrized variational principles for mechanics, *Comput. Mech.*, **18**, 159–174, 1996.
- [81] Felippa, C. A., Park, K. C. and Justino Filho, M. R., The construction of free-free flexibility matrices as generalized stiffness inverses, *Computers & Structures*, **88**, 411–418, 1997.
- [82] Felippa, C. A. and Park, K. C., A direct flexibility method, *Comp. Meths. Appl. Mech. Engrg.*, **149**, 319–337, 1997.
- [83] Felippa, C. A., Recent advances in finite element templates, Chapter 4 in *Computational Mechanics for the Twenty-First Century*, ed. by B.H.V. Topping, Saxe-Coburn Pubs., Edinburgh, 71–98, 2000.
- [84] Felippa, C. A., Customizing high performance elements by Fourier methods, *Trends in Computational Mechanics*, ed. by W. A. Wall et. al., CIMNE, Barcelona, Spain, 283-296, 2001.
- [85] Felippa, C. A., web-posted Lectures on Advanced Finite Element Methods, at <http://caswww.colorado.edu/courses.d/AFEM.d/Home.html>, updated irregularly
- [86] Felippa, C. A., web-posted Lectures on Introduction to Finite Element Methods, at <http://caswww.colorado.edu/courses.d/IFEM.d/Home.html>, updated each Fall semester
- [87] Felippa, C. A., Customizing the mass and geometric stiffness of plane thin beam elements by Fourier methods, *Engrg. Comput.*, **18**, 286–303, 2001.
- [88] Felippa, C. A., A historical outline of matrix structural analysis: a play in three acts, *Computers & Structures*, **79**, 1313–1324, 2001.
- [89] Felippa, C. A. and Park, K. C., The construction of free-free flexibility matrices for multilevel structural analysis, *Comp. Meths. Appl. Mech. Engrg.*, **191**, 2111–2140, 2002.
- [90] Felippa, C. A., A study of optimal membrane triangles with drilling freedoms, *Comp. Meths. Appl. Mech. Engrg.*, **192**, 2125–2168, 2003.
- [91] Felippa, C. A., A template tutorial, Chapter 3 in *Computational Mechanics: Theory and Practice*, ed. by K. M. Mathisen, T. Kvamsdal and K. M. Okstad, CIMNE, Barcelona, 29–68, 2004.
- [92] Felippa, C. A., The amusing history of shear flexible beam elements, *IACM Expressions*, Issue 17, 15–19, 2005.
- [93] Felippa, C. A. and Oñate, E., Nodally exact Ritz discretizations of 1D diffusion-absorption and Helmholtz equations by variational FIC and modified equation methods, *Comput. Mech.*, to appear 2006.
- [94] Flaggs, D. L., Symbolic analysis of the finite element method in structural mechanics, *Ph. D. Dissertation*, Dept of Aeronautics and Astronautics, Stanford University, 1988.
- [95] Flanagan, D. P. and Belytschko, T., A uniform strain hexahedron and quadrilateral with orthogonal hourglass control, *Int. J. Numer. Meth. Engrg.*, **17**, 679–706, 1981.
- [96] Flanders, H., *Differential Forms, With Applications to the Physical Sciences*, Dover, 1989.
- [97] Fourier, J., *Theorie Analytique de la Chaleur*, Chez Firmin Didot, Père et Fils, Paris, 1822.
- [98] Fox, R. L. and Schmit, L. A., Advances in the integrated approach to structural synthesis, AIAA/ASME Material Conference, 1964.

- [99] Fraeijs de Veubeke, B. M., Diffusion des inconnues hyperstatiques dans les voilures à longeron couplés, *Bull. Serv. Technique de L'Aéronautique No. 24*, Imprimerie Marcel Hayez, Bruxelles, 1951.
- [100] Fraeijs de Veubeke, B. M., Upper and lower bounds in matrix structural analysis, in *AGARDograph 72: Matrix Methods of Structural Analysis*, ed. by B. M. Fraeijs de Veubeke, Pergamon Press, New York, 174–265, 1964.
- [101] Fraeijs de Veubeke, B. M., Displacement and equilibrium models, in *Stress Analysis*, ed. by O. C. Zienkiewicz and G. Hollister, Wiley, London, 145–197, 1965; reprinted in *Int. J. Numer. Meth. Engrg.*, **52**, 287–342, 2001.
- [102] Fraeijs de Veubeke, B. M., Stress function approach, *Proc. World Congr. on Finite Element Methods*, October 1975, Woodlands, England; reprinted in *B. M. Fraeijs de Veubeke Memorial Volume of Selected Papers*, ed. by M. Geradin, Sitthoff & Noordhoff, Alphen aan den Rijn, The Netherlands, pp. 663–715, 1980.
- [103] Frazer R. A. and Duncan, W., J., *The Flutter of Airplane Wings*, Reports & Memoranda 1155, Aeronautical Research Committee, London, 1928.
- [104] Frazer, R. A., Duncan, W. J. and Collar, A. R., *Elementary Matrices, and some Applications to Dynamics and Differential Equations*, Cambridge Univ. Press, 1st ed. 1938, 7th (paperback) printing 1963.
- [105] Fried, I. and Malkus, D. S., Finite element mass lumping by numerical integration with no convergence rate loss, *Int. J. Solids Struc.*, **11**, 461–466, 1975.
- [106] Fung, Y. C., *Foundations of Solid Mechanics*, Prentice-Hall, 1965.

G

- [107] Gallaguer, R. H., *A Correlation Study of Methods of Matrix Structural Analysis*, Pergamon, Oxford, 1964.
- [108] Gantmacher, F. R., *The Theory of Matrices*, 2 vols, Chelsea, New York, 1960.
- [109] Garbow, B. S., Boyle, J. M., Dongarra, J. J. and Moler, C. B., Matrix Eigensystem Routines - EISPACK Guide Extension, Lecture Notes in Computer Science Vol. 51, Springer-Verlag, New York, 1986.
- [110] Gelfand, I. M. and Fomin, S. V., *Calculus of Variations*, Prentice-Hall, 1963; Dover ed., 2000.
- [111] Geradin, M. and Rixen, D., *Mechanical Vibrations: Theory and Applications to Structural Dynamics*, Wiley, New York, 1997.
- [112] Glynn, J. and Gray, T. H., *The Beginner's Guide to Mathematica Version 4*, Cambridge Univ. Press, 1999.
- [113] Goldstine, H. H., *A History of Numerical Analysis*, Springer-Verlag, New York, 1977.
- [114] Golub, G. H. and Van Loan, C. F. *Matrix Computations*, Johns Hopkins Univ. Press, 2nd ed., 1983.
- [115] Graff, K. F., *Wave Motion in Elastic Solids*, Dover, New York, 1991.
- [116] Griffiths, D. F. and Mitchell, A. R., Nonconforming elements, in *The Mathematical Basis of Finite Element Methods*, ed. by D. F. Griffiths, Clarendon Press, Oxford, 41–70, 1984.
- [117] Griffiths, D. and Sanz-Serna, J., On the scope of the method of modified equations. *SIAM J. Sci. Statist. Comput.*, **7**, 994–1008, 1986.
- [118] Guggenheimer, H. W., *Differential Geometry*, Dover, 1977.
- [119] Gurtin, M. E., The linear theory of elasticity, in *Mechanics of Solids Vol. II*, ed. by C. Truesdell, Springer-Verlag, Berlin 1984, 1–295.
- [120] Guyan, R. J., Reduction of stiffness and mass matrices, *AIAA J.*, **3**, 380, 1965.

H

- [121] Hairer, E., Backward analysis of numerical integrators and symplectic methods, *Annals Numer. Math.*, **1**, 107–132, 1994.
- [122] Hairer, E., Wanner, G. and Lubich, C., *Geometrical Numeric Integration: Structure-Preserving Algorithms for Ordinary Differential Equations*, Springer-Verlag, Berlin, 2002.
- [123] Hammer, P. C. and Stroud, A. H., Numerical integration over simplices, *Math. Tables Aids Comput.*, **10**, 137–139, 1956.
- [124] Hammer, P. C. and Stroud, A. H., Numerical evaluation of multiple integrals, *Math. Tables Aids Comput.*, **12**, 272–280, 1958.
- [125] Hamming, R., W., *Digital Filters*, Dover, New York, 3rd ed., 1998.
- [126] Hamming, R. W., *Numerical Methods for Scientists and Engineers*, Dover, New York, 2nd ed., 1973.
- [127] Hanssen, L., Bergan, P. G. and Syversten, T. J., Stiffness derivation based on element convergence requirements, in *The Mathematics of Finite Elements and Applications – Volume III*, ed. by J. R. Whiteman, Academic Press, London, 83–96, 1979.
- [128] Hardy, G. H., *Divergent Series*, AMS Chelsea, AMS, Providence, 1991 (reprint of 1949 Oxford edition).
- [129] Herrmann, L. R., Elasticity equations for nearly incompressible materials by a variational theorem, *AIAA Journal*, **3**, 1896–1900, 1965.
- [130] Herrmann, L. R., A bending analysis for plates, in *Proceedings 1st Conference on Matrix Methods in Structural Mechanics*, AFFDL-TR-66-80, Air Force Institute of Technology, Dayton, Ohio, 577–604, 1966.
- [131] Hestenes, M. R., Multiplier and gradient methods, *J. Optim. Theory Appl.*, **4**, 303–320, 1969.
- [132] Hetenyi, M., *Beams on Elastic Foundation: Theory with Applications in the Fields of Civil and Mechanical Engineering*, Univ. of Michigan Press, 1946; 8th printing, 1967.
- [133] Hinton, E., Rock T. and Zienkiewicz, O. C., A note on mass lumping and related processes in the finite element method, *Earthquake Engrg. Struct. Dynamics*, **4**, 245–249, 1976.
- [134] Householder, A. S., *The Theory of Matrices in Numerical Analysis*, Glinn/Blaisdell, 1964; Dover reprint 1975.
- [135] Hrenikoff, A., Solution of problems in elasticity by the framework method, *J. Appl. Mech.*, **8**, A169–A175, 1941.
- [136] Huang, H. C. and Hinton, E., A new nine node degenerated shell element with enhanced membrane and shear interpolation, *Int. J. Numer. Meth. Engrg.*, **22**, 73–92, 1986.
- [137] Hughes, T. J. R. and Malkus, D. S., Mixed finite element methods – reduced and selective integration techniques: a unification of concepts, *Comp. Meths. Appl. Mech. Engrg.*, bf 15, 63–81, 1978.
- [138] Hughes, T. J. R. and Cohen, M., The Heterosis finite element for plate bending, *Computers & Structures*, **9**, 445–450, 1980.
- [139] Hughes, T. J. R., Generalization of selective integration procedures to anisotropic and nonlinear media, *Int. J. Numer. Meth. Engrg.*, **15**, 1413–148, 1980.
- [140] Hughes, T. J. R. and D. S. Malkus, D. S., A general penalty mixed equivalence theorem for anisotropic, incompressible finite elements, in *Hybrids and Mixed Finite Element Methods*, ed. by S. N. Atluri, R. H. Gallagher and O. C. Zienkiewicz, Wiley, London, 1983.
- [141] Hughes, T. J. R., *The Finite Element Method: Linear Static and Dynamic Finite Element Analysis*, Prentice Hall, Englewood Cliffs, NJ, 1987; Dover reprint, 2000.

I

- [142] Irons, B. M. and Draper, K., Inadequacy of nodal connections in a stiffness solution for plate bending, *AIAA J.*, **3**, 965–966, 1965.

- [143] Irons, B. M., Engineering application of numerical integration in stiffness methods, *AIAA J.*, **4**, 2035–2037, 1966.
- [144] Irons, B. M. and A. Razzaque, A., Experiences with the patch test for convergence of finite elements, in *The Mathematical Foundations of the Finite Element Method with Applications to Partial Differential Equations*, ed. by A. K. Aziz, Academic Press, New York, 557–587, 1972.
- [145] Irons, B. M., Barlow, J., Comments on ‘matrices for the direct stiffness method’ by R. J. Melosh, *AIAA J.*, **2**, 403, 1964.
- [146] Irons, B. M., A frontal solution program for finite element analysis, *Int. J. Numer. Meth. Engrg.*, **12**, 5–32, 1970.
- [147] Irons, B. M. and Ahmad, S., *Techniques of Finite Elements*, Ellis Horwood Ltd, Chichester, UK, 1980.
- [148] Irons, B. M., and Loikannen, M., An engineer’s defense of the patch test, *Int. J. Numer. Meth. Engrg.*, **19**, 1391–1401, 1983.

J

- [149] Jones, H., *The Theory of Brillouin Zones and Electronic States in Crystals*, North-Holland, Amsterdam, 1960.

K

- [150] Kavanagh, K. and Key, S. W., A note on selective and reduced integration techniques in the finite element method, *Int. J. Numer. Meth. Engrg.*, **4**, 148–150, 1972.
- [151] Krieg, R. D. and Key, S. W., Transient shell analysis by numerical time integration, in *Advances in Computational Methods for Structural Mechanics and Design*, ed. by J. T. Oden, R. W. Clough and Y. Yamamoto, UAH Press, Huntsville, Alabama, 237–258, 1972.
- [152] G. Kron, Tensorial analysis and equivalent circuits of elastic structures, *J. Franklin Inst.*, **238**, 399–442 (1944).

L

- [153] Lagrange, J. L., *Mécanique Analytique*, Chez la veuve Desaint, Paris, 1788; Édition complète, 2 vols., Blanchard, Paris, 1965.
- [154] Lanczos, C., *The Variational Principles of Mechanics*, Dover, 4th edition, 1970. (First edition 1949).
- [155] Langhaar, H. L., *Energy Methods in Applied Mechanics*, Wiley, New York, 1962.
- [156] Lautersztajn-S, N. and Samuelsson, A., Further discussion on four-node isoparametric elements in plane bending, *Int. J. Numer. Meth. Engrg.*, **47**, 129–140, 2000.
- [157] Levy, S., Computation of influence coefficients for aircraft structures with discontinuities and sweep-back, *J. Aero. Sci.*, **14**, pp. 547–560, 1947.
- [158] Levy, S., Structural analysis and influence coefficient for delta wings, *J. Aero. Sci.*, **20**, pp. 449–454, 1953.
- [159] Livesley, R. K., *Matrix Methods of Structural Analysis*, Pergamon Press, London, 1964.

M

- [160] MacNeal, R. H. (ed.), *The NASTRAN Theoretical Manual*, NASA SP-221, 1970.
- [161] MacNeal, R. H., Derivation of element stiffness matrices by assumed strain distribution, *Nuclear Engrg. Design*, **70**, 3–12, 1978.
- [162] MacNeal, R. H., A simple quadrilateral shell element, *Computers & Structures*, **8**, 175–183, 1978.
- [163] MacNeal, R. H., The evolution of lower order plate and shell elements in MSC/NASTRAN, in Hughes, T. J. R. and E. Hinton (eds.), *Finite Element Methods for Plate and Shell Structures, Vol. I: Element Technology*, Pineridge Press, Swansea, U.K., 85–127, 1986.

- [164] MacNeal, R. H. and Harder, R. L., A proposed standard set of problems to test finite element accuracy, *Finite Elem. Anal. Des.*, **1**, 3–20, 1985.
- [165] MacNeal, R. H., A theorem regarding the locking of tapered four noded membrane elements, *Int. J. Numer. Meth. Engrg.*, **24**, 1793–1799, 1987.
- [166] MacNeal, R. H., *Finite Elements: Their Design and Performance*, Marcel Dekker, New York, 1994.
- [167] Malkus, D. S. and Plesha, M. E., Zero and negative masses in finite element vibration and transient analysis, *Comp. Meths. Appl. Mech. Engrg.*, **59**, 281–306, 1986.
- [168] Malkus, D. S., Plesha, M. E. and Liu, M. R., Reversed stability conditions in transient finite element analysis, *Comp. Meths. Appl. Mech. Engrg.*, **68**, 97–114, 1988.
- [169] Martin, H. C., On the derivation of stiffness matrices for the analysis of large deflection and stability problems, in *Proc. 1st Conf. on Matrix Methods in Structural Mechanics*, ed. by J. S. Przemieniecki et al, AFFDL-TR-66-80, Air Force Institute of Technology, 697–716, 1966.
- [170] Martin, H. C., *Introduction to Matrix Methods of Structural Analysis*, McGraw-Hill, New York, 1966.
- [171] Martin, H. C. and Carey, G. F., *Introduction to Finite Element Analysis*, McGraw-Hill, New York, 1973.
- [172] McHenry, D., A lattice analogy for the solution of plane stress problems, *J. Inst. Civ. Engrs.*, **21**, 59–82, 1943.
- [173] Meirovitch, L., *Methods of Analytical Dynamics*, MacGraw-Hill, New York, 1970.
- [174] Meirovitch, L., *Computational Methods in Structural Dynamics*, Kluwer Acad. Pubs, 1980.
- [175] Melosh, R. J. and Merritt, R. G., Evaluation of spar matrices for stiffness analysis, *J. Aero. Sci.*, **25**, 537–543, 1959.
- [176] Melosh, R. J., A stiffness matrix for the analysis of thin plates in bending, *J. Aero. Sci.*, **28**, 34–40, 1961.
- [177] Melosh, R. J., Development of the stiffness method to define bounds on the elastic behavior of structures, *Ph.D. Dissertation*, University of Washington, Seattle, 1962.
- [178] Melosh, R. J., Bases for the derivation of matrices for the direct stiffness method, *AIAA J.*, **1**, 1631–1637, 1963.
- [179] Melosh, R. J., Structural analysis of solids, *J. ASCE Struct. Div.*, **ST4-89**, 205–223, 1963.
- [180] Melosh, R. J., A flat triangular shell element stiffness matrix, Proc. Conf. on Matrix Methods in Structural Mechanics, WPAFB, Ohio, 1965, in *AFFDL TR 66-80*, 503–509, 1965.
- [181] Militello, C. and Felippa, C. A., The individual element patch revisited, in *The Finite Element Method in the 1990's — a book dedicated to O. C. Zienkiewicz*, ed. by E. Oñate, J. Periaux and A. Samuelsson, CIMNE, Barcelona and Springer-Verlag, Berlin, 554–564, 1990.
- [182] Militello, C. and Felippa, C. A., The First ANDES Elements: 9-DOF Plate Bending Triangles, *Comp. Meths. Appl. Mech. Engrg.*, **93**, 217–246, 1991.
- [183] Möbius, A.F., *Der Barycentrische Calcul*, Georg Olms, Hildesheim, Germany, 1976. Original edition: Leipzig, Germany, 1827.
- [184] Morley, L. S. D., The constant-moment plate bending element, *J. Strain Analysis*, **6**, 20–24, 1971.
- [185] Muir, T., (Sir), *Theory of Determinants*, Dover, New York, 1960.

N

- [186] Nygård, M. K., The Free Formulation for nonlinear finite elements with applications to shells, *Ph. D. Dissertation*, Division of Structural Mechanics, NTH, Trondheim, Norway, 1986.

O

[187] Özişik, M. N., *Boundary Value Problems of Heat Conduction*, Dover edition, 1989.

P

[188] Park, K. C. and Flaggs, D. L., An operational procedure for the symbolic analysis of the finite element method, *Comp. Meths. Appl. Mech. Engrg.*, **46**, 65–81, 1984.

[189] Park, K. C. and Flaggs, D. L., A Fourier analysis of spurious modes and element locking in the finite element method, *Comp. Meths. Appl. Mech. Engrg.*, **42**, 37–46, 1984.

[190] Park, K. C. and Stanley, G. M., A curved C^0 shell element based on assumed natural-coordinate strains, *J. Appl. Mech.*, **53**, 278–290, 1986.

[191] Parlett, B. N., *The Symmetric Eigenvalue Problem*, Prentice-Hall, 1980.

[192] Pawsey, S. F., and Clough, R. W., Improved numerical integration of thick shell finite elements, *Int. J. Numer. Meth. Engrg.*, **3**, 545–586, 1971.

[193] Pestel, E. C. and Leckie, F. A., *Matrix Methods in Elastomechanics*, McGraw-Hill, New York, 1963.

[194] Pian, T. H. H., Derivation of element stiffness matrices by assumed stress distributions, *AIAA J.*, **2**, 1333–1336, 1964.

[195] Pian, T. H. H., Element stiffness matrices for boundary compatibility and for prescribed boundary stresses, in *Proc. 1st Conf. on Matrix Methods in Structural Mechanics*, AFFDL-TR-66-80, Air Force Institute of Technology, Dayton, Ohio, 457–478, 1966.

[196] Pian, T. H. H. and Tong, P., Basis of finite element methods for solid continua, *Int. J. Numer. Meth. Engrg.*, **1**, 3–29, 1969.

[197] Pian, T. H. H. and Sumihara, K., Rational approach for assumed stress finite elements, *Int. J. Numer. Meth. Engrg.*, **20**, 1685–1695, 1984.

[198] Pian, T. H. H. and Tong, P., Relations between incompatible displacement model and hybrid stress model, *Int. J. Numer. Meth. Engrg.*, **22**, 173–181, 1986.

[199] Pian, T. H. H., Some notes on the early history of hybrid stress finite element method, *Int. J. Numer. Meth. Engrg.*, **47**, 419–425, 2000.

[200] Popov, E. P., *Engineering Mechanics of Solids*, Prentice Hall, Englewood Cliffs, N. J., 2nd ed., 1991.

[201] Powell, M. J. D., A method for nonlinear constraints in optimization problems, in *Optimization*, ed. by R. Fletcher, Academic Press, London, 283–298, 1969.

[202] Prager, W. and Synge, J. L., Approximations in elasticity based on the concept of function space, *Quart. Appl. Meth.*, **5**, 241–269, 1947.

[203] Press, W. J. et al., *Numerical Recipes: The Art of Scientific Computing*, 2nd ed., Cambridge Univ. Press, 1992.

[204] Przemieniecki, J. S., *Theory of Matrix Structural Analysis*, McGraw-Hill, New York, 1968; Dover edition 1986.

[205] Punch, E. F. and Atluri, S. N., Development and testing of stable, invariant, isoparametric curvilinear 2- and 3D hybrid stress elements, *Comp. Meths. Appl. Mech. Engrg.*, **47**, 331–356, 1984.

Q

R

[206] Raimes, S., *The Wave Mechanics of Electrons in Metals*, North-Holland, Amsterdam, 1967.

[207] Rand, T., An approximate method for computation of stresses in sweptback wings, *J. Aero. Sci.*, **18**, pp. 61–63, 1951.

[208] Rankin, C. C., Brogan, F. A., Loden, W. A. and Cabiness, H., *STAGS User Manual*, Lockheed Mechanics, Materials and Structures Report P032594, Version 3.0, January 1998.

- [209] Razzaque, A., Program for triangular bending elements with derivative smoothing, *Int. J. Numer. Meth. Engrg.*, **6**, 333–343, 1973.
- [210] Reissner, E., On a variational theorem in elasticity, *J. Math. Phys.*, **29**, 90–95, 1950.
- [211] Roark, R. J., Budynas, R. G. and Young, W. C., *Roark's Formulas for Stress and Strain*, McGraw-Hill, New York, 7th ed., 2001.
- [212] Robinson, J., *Structural Matrix Analysis for the Engineer*, Wiley, New York, 1966.
- [213] Ruskeepaa, H. *Mathematica Navigator: Mathematics, Statistics, and Graphics*, Academic Press, 2004.
- [214] Ruskeepaa, H., *Mathematica Navigator: Graphics and Methods of Applied Mathematics*, Academic Press, 2004.

S

- [215] Sander, G. and Beckers, P. The influence of the choice of connectors in the Finite Element Method, in *The Mathematical Aspects of the Finite Element Method*, Lecture Notes in Mathematics, Vol. 606, Springer-Verlag, Berlin, 316ff, 1977.
- [216] Schuerch, H. U., Delta wing design analysis, presented at the *Natl. Aeron. Meeting*, Soc. Autom. Engrg, Preprint 441, Los Angeles, 1953.
- [217] Simo, J. C. and Rifai, M. S., A class of mixed assumed strain methods and the method of incompatible modes, *Int. J. Numer. Meth. Engrg.*, **29**, 1595–1638, 1990.
- [218] Skeie, G., The Free Formulation: linear theory and extensions with applications to tetrahedral elements with rotational freedoms, *Ph. D. Dissertation*, Division of Structural Mechanics, NTH, Trondheim, Norway, 1991.
- [219] Simo, J. C. and Hughes, T. J. R., On the variational foundations of assumed strain methods, *J. Appl. Mech.*, **53**, 51–54, 1986.
- [220] Simo, J. C. and Rifai, M. S., A class of mixed assumed strain methods and the method of incompatible modes, *Int. J. Numer. Meth. Engrg.*, **29**, 1595–1638, 1990.
- [221] Sokolnikoff, I., *The Mathematical Theory of Elasticity*, McGraw-Hill, 2nd ed., 1956.
- [222] Sortais, Y. and R., *La Géométrie du Triangle*, Hermann, Paris, 1987.
- [223] Stanley, G. M., Park, K. C. and Hughes, T. J. R., Continuum based resultant shell elements, in T. J. R. Hughes and E. Hinton (eds.), *Finite Element Methods for Plate and Shell Structures, Vol. I: Element Technology*, Pineridge Press, Swansea, U.K., 1986, 1–45.
- [224] Stewart, G. W., *Introduction to Matrix Computations*, Academic Press, New York, 1973.
- [225] Stewart, G. W. and Sun, J. G., *Matrix Perturbation Theory*, Academic Press, Boston, 1990.
- [226] Strang, G., Variational crimes in the finite element method, in *The Mathematical Foundations of the Finite Element Method with Applications to Partial Differential Equations*, ed. by A. K. Aziz, Academic Press, New York, 689–710, 1972.
- [227] Strang, G. and Fix, G., *An Analysis of the Finite Element Method*. Prentice-Hall, 1973.
- [228] Strang, G., *Linear Algebra and its Applications*, Academic Press, New York, 1976.
- [229] Stroud, A. H. and Secrest, D., *Gaussian Quadrature Formulas*, Prentice-Hall, Englewood Cliffs, NJ, 1966.
- [230] Stroud, A. H., *Approximate Calculation of Multiple Integrals*, Prentice-Hall, Englewood Cliffs, N.J., 1971.
- [231] Struik, D. J., *Lectures in Classical Differential Geometry*, Addison-Wesley, 2nd ed., 1961.
- [232] Stuart, A. M. and Humphries, A. R., *Dynamic Systems and Numerical Analysis*, Cambridge Univ. Press, Cambridge, 1996.

- [233] Stummel, F., The limitations of the patch test, *Int. J. Numer. Meth. Engrg.*, **15**, 177–188, 1989.
- [234] Stummel, F., The generalized patch test, *SIAM J. Numer. Anal.*, **16**, 449–471, 1979.
- [235] Synge, J. R. *The Hypercircle in Mathematical Physics*, Cambridge Univ. Press, Cambridge, 1957.
- [236] Szabo, B. and Babuska, I., *Finite Element Analysis*, Wiley, New York, 1991.

T

- [237] Taig, I. C. and Kerr, R. I., Some problems in the discrete element representation of aircraft structures, in *Matrix Methods of Structural Analysis*, ed. by B. M. Fraeijs de Veubeke, Pergamon Press, London, 1964.
- [238] Taylor, R. L., Pister, K. S. and Herrmann, L. R., A variational principle for incompressible and nearly incompressible orthotropic elasticity, *Int. J. Solids Struc.*, **4**, 875–883, 1968.
- [239] Taylor, R. L., Wilson, E. L. and Beresford, P. J., A nonconforming element for stress analysis, *Int. J. Numer. Meth. Engrg.*, **10**, 1211–1219, 1976.
- [240] Taylor, R. L., Simo, J. C., Zienkiewicz, O. C. and Chan, A. C., The patch test: a condition for assessing FEM convergence, *Int. J. Numer. Meth. Engrg.*, **22**, 39–62, 1986.
- [241] Tessler, A., and Hughes, T. J. R., A three-node Mindlin plate element with improved transverse shear, *Comp. Meths. Appl. Mech. Engrg.*, **50**, 71–101, 1985.
- [242] Timoshenko, S. P., On the correction for shear of the differential equation for transverse vibration of prismatic bars. *Phil. Mag.*, **XLI**, 744–46, 1921. Reprinted in *The Collected Papers of Stephen P. Timoshenko*, McGraw-Hill, London, 1953. See also S. P. Timoshenko and D. H. Young, *Vibration Problems in Engineering*, 3rd edition, Van Nostrand, 329–331, 1954.
- [243] Timoshenko, S. P. *Theory of Elastic Stability*, McGraw-Hill, New York, 1936.
- [244] Timoshenko, S. P. and Goodier, J. N., *Theory of Elasticity*, McGraw-Hill, New York, 1951.
- [245] Timoshenko, S. P. and Young, D. N., *Vibration Problems in Engineering*, Van Nostrand, Princeton, N.J., 1955.
- [246] Timoshenko, S. P. and S. Woinowsky-Krieger, S., *Theory of Plates and Shells*, McGraw-Hill, New York, 1959.
- [247] Tocher, J. L., Analysis of plate bending using triangular elements, *Ph. D. Dissertation*, Dept. of Civil Engineering, Univ. of California, Berkeley, CA, 1962.
- [248] Tocher, J. L. and Kapur, K. K., Discussion of ‘Basis for derivation of matrices for the direct stiffness method’ by R. J. Melosh, *AIAA J.*, **3**, 1215–1216, 1965.
- [249] Tocher, J. L. and Herness, E. D., A critical view of NASTRAN, in: *Numerical and Computer Codes in Structural Mechanics*, ed. by S. J. Fenves, N. Perrone, A. R. Robinson and W. C. Schnobrich, Academic Press, New York, 1973, pp. 151–173.
- [250] Tong, P., Exact solution of certain problems by the finite element method, *AIAA J.*, **7**, 179–180, 1969.
- [251] Tonti, E., The reason for analogies between physical theories, *Appl. Math. Model.*, **1**, 37–50, 1977.
- [252] Truesdell, C. and Toupin, R. A., The classical field theories, in S. Flügge (ed.), *Handbuch der Physik*, vol. III/1, 226–790, Springer-Verlag, Berlin, 1960.
- [253] Truesdell, C., *The Tragicomical History of Thermodynamics*, Springer-Verlag, Berlin, 1980.
- [254] Turner, M. J., Clough, R. W., Martin, H. C. and Topp, L. J., Stiffness and deflection analysis of complex structures, *J. Aero. Sci.*, **23**, 805–824, 1956.
- [255] Turner, M. J., The direct stiffness method of structural analysis, Structural and Materials Panel Paper, AGARD Meeting, Aachen, Germany, 1959.
- [256] Turner, M. J., Dill, E. H., Martin, H. C. and Melosh, R.J., Large deflection analysis of complex structures subjected to heating and external loads, *J. Aero. Sci.*, **27**, pp. 97–107, 1960.

- [257] Turner, M. J., Martin, H. C., Weikel, R. C., Further development and applications of the stiffness method, in *AGARDograph 72: Matrix Methods of Structural Analysis*, ed. by B. M. Fraeijns de Veubeke, Pergamon Press, New York, 203–266, 1964.

U

V

- [258] Venkayya, V. B., Khot, N. S. and Reddy, V. S., Optimization of structures based on the study of energy distribution, in *Proceedings 2nd Conference on Matrix Methods in Structural Mechanics*, ed. by L. Berke et. al., AFFDL-TR-68-150, Air Force Institute of Technology, Dayton, Ohio, 111–154, 1968.

W

- [259] Waltz, J. E., Fulton, R. E. and Cyrus, N. J., Accuracy and convergence of finite element approximations, *Proc. Second Conf. on Matrix Methods in Structural Mechanics*, WPAFB, Ohio, Sep. 1968, in *AFFDL TR 68-150*, 995–1028, 1968
- [260] Walhlbin, L. B., *Superconvergence in Galerkin Finite Element Methods*, Lecture Notes in Mathematics 1605, Springer-Verlag, Berlin, 1995.
- [261] Warming, R. F. and Hyett, B. J., The modified equation approach to the stability and accuracy analysis of finite difference methods, *J. Comp. Physics*, **14**, 159–179, 1974.
- [262] Weisstein, E. W., *CRC Concise Encyclopedia of Mathematics*, Chapman-Hall CRC, 2nd ed., 2002.
- [263] Wilf, H. S., *Generatingfunctionology*, Academic Press, New York, 1991.
- [264] Wilkinson, J. H., *The Algebraic Eigenvalue Problem*, Oxford Univ. Press, New York, 1965.
- [265] Wilkinson, J. H. and C. H. Reinsch, C. H. (eds.), *Handbook for Automatic Computation. Linear Algebra*, vol 2., Springer-Verlag, Berlin, 1971.
- [266] Willam, K. J., Finite element analysis of cellular structures, *Ph. D. Dissertation*, Dept. of Civil Engineering, Univ. of California, Berkeley, CA, 1969.
- [267] Wilson, E. L., Finite element analysis of two-dimensional structures, *Ph. D. Dissertation*, Department of Civil Engineering, University of California at Berkeley, 1963.
- [268] Wilson, E. L., R. L. Taylor, R. L., Doherty, W. P. and Ghaboussi, J., Incompatible displacement models, in *Numerical and Computer Models in Structural Mechanics*, ed. by S. J. Fenves, N. Perrone, A. R. Robinson and W. C. Schnobrich, Academic Press, New York, 43–57, 1973.
- [269] Wilson, E. L., The static condensation algorithm, *Int. J. Numer. Meth. Engrg.*, **8**, 198–203, 1978.
- [270] Wilson, E. L., Automation of the finite element method — a historical view, *Finite Elem. Anal. Des.*, **13**, pp. 91–104, 1993.
- [271] Wilson, E. L., *Three Dimensional Static and Dynamic Analysis of Structures: A Physical Approach with Emphasis on Earthquake Engineering*, Computers & Structures, Inc., 1998.
- [272] Wimp, J., *Sequence Transformations and Their Applications*, Academic Press, New York, 1981.
- [273] Wolfram, S., *The Mathematica Book*, Wolfram Media Inc., 4th ed. 1999
- [274] Wu, C. C. and Cheung, Y. K., On optimization approaches of hybrid stress elements, *Finite Elem. Anal. Des.*, **21**, 111–128, 1995.

X

Y

Z

