

9 References

A. Al-Ani, J.W. Hancock, J-dominance of short cracks in tension and bending. *J Mech Physics Solids*, 1991, 39, 1, 23-43.

S.N. Atluri, A.S. Kobayashi, and M. Nakagaki, An assumed displacement hybrid finite element model for linear elastic fracture mechanics. *Int J Fracture*, 1975, 11, 257-271.

L. Banks-Sills, Use of three-dimensional finite elements in linear elastic fracture mechanics. *Analytical, Numerical and Experimental Aspects of Fracture Processes*, ASME-AMD 1988, 91, 89-97.

L. Banks-Sills, Application of the finite element method to linear elastic fracture mechanics. *Applied Mechanics Reviews*, 1991, 44, 447- 461.

L. Banks-Sills and D. Sherman, On quarter-point three-dimensional finite elements in elastic fracture mechanics. *Int J Fracture*, 1989, 41, 177-196.

L. Banks-Sills and D. Sherman, On the computation of stress intensity factors for three-dimensional geometries by means of the stiffness derivative and J-integral methods. *Int J Fracture*, 1992, 53, 1-20.

L. Banks-Sills and O. Einav, On singular, nine-noded, distorted, isoparametric elements in linear elastic fracture mechanics. *Computers & Structures*, 1987, 27, 445-449.

L. Banks-Sills and Y. Bortman, Reappraisal of the quarter-point quadrilateral element in linear fracture mechanics. *Int J Fracture*, 1984, 25, 169-180.

L. Banks-Sills and Y. Bortman, Quarter-point singular elements revisited. *Int J Fracture*, 1987, 34, R63-R69.

E.J. Barbero and J.N. Reddy, The jacobian derivative method for three-dimensional fracture mechanics. *Comm Applied Num Methods*, 1990, 6, 507-518.

R.S. Barsoum, On the use of isoparametric finite elements in linear fracture mechanics. *Int J Num Meth Engng*, 1976, 10, 25-37.

R.S. Barsoum, Triangular quarter-point elements as elastic and perfectly-plastic crack tip elements. *Int J Num Meth Engng*, 1977, 11, 85-98.

Z.P. Bazant and A.B. Wahab, Instability and spacing of cooling or shrinkage cracks. *J Engng Mech Division, ASCE*, 1979a, 105(EM5).

Z.P. Bazant and H. Ohtsubo, Stability conditions for propagation of a system of cracks

in a brittle solid. *Mechanics Research Communications*, 1977, 4, 5, 353-366.

Z.P. Bazant, H. Ohtsubo and K. Aho, Stability and post-critical growth of a system of cooling or shrinkage cracks. *Int J Fracture*, 1979b, 15, 5, 443-456.

Z.P. Bazant, in "Proceedings of FRAMCOS-2, Zurich, 1995", ed. Folker H. Wittmann, AEDIFICATIO Publishers, Freiburg 1995, pp.515-534.

S.F. Benzley, Representations of singularities with isoparametric finite elements. *Int J Num Meth Engng*, 1974, 8, 537-545.

T. Bittencourt, P. Wawrzynek, J. Sousa, A. Ingraffea, Quasi-Automatic simulation of crack propagation for 2D LEFM problems. *Engng Fracture Mech*, 1996, 55, 2, 321-334.

M. Bonnet, In "Proceedings of Boundary Element Method XVI, Southampton, 1994", Computational Mechanics Publications, Southampton, 1994, pp. 373-380.

M.B. Buczek, C. T. Herakovich, A normal stress criterion for crack extension direction in orthotropic composite materials. *J Composite Materials*, 1985, 19, 544-553.

B. Budiansky and J. Rice, Conservation laws and energy release rates. *J Applied Mech*, 1973, 40, 201-203.

H.D. Bui, and K.D. Van, Generalization de la theorie de la rupture de Griffith. *J de Mecanique Appliquee*, 1979, 3, 2, 205-225.

H.D. Bui, Associated path independent J-integral for separating mixed modes. *J Mech Phys Solids*, 1983, 31, 439-448.

E. Byskov, The calculation of stress intensity factors using the finite element method with cracked elements. *Int J Fracture*, 1970, 6, 159-167.

G.E. Cardew, M. R. Goldthorpe, I. C. Howard, A. P. Kfoury, in "Fundamentals of Deformation and Fracture: Eshelby Memorial Symposium", Cambridge University Press, Cambridge, 1985, pp. 465-476.

J. Cervenka and V.E. Saouma, Numerical evaluation of 3-D SIF for arbitrary finite element meshes. *Engng Fracture Mech*, 1997, 57, 541-563.

S.K. Chan, I.S. Tuba and W.K. Wilson, On the finite element method in linear fracture mechanics. *Engng Fracture Mech*, 1970, 2, 1-17.

C.-S. Chen, Crack Growth Simulation and Residual Strength Prediction in Thin Shell Structures. Ph. D. Dissertation, Cornell University, January, 1999.

C.-S. Chen, P. A. Wawrzynek, and A. R. Ingraffea, Methodology for fatigue crack growth and residual strength prediction with applications to aircraft fuselages. *Computational Mechanics*, 1997, 19, 527-532.

C.-S. Chen, P. A. Wawrzynek, and A. R. Ingraffea, Prediction of residual strength and curvilinear crack growth in aircraft fuselages. Accepted for publication, *AIAA Journal*, 2002.

C.-S. Chen, R. Krause, R. G. Pettit, L. Banks-Sills, A. R. Ingraffea, Numerical assessment of T-stress computation using a P-version finite element method. *Int J Fracture*, 2001, 107, 2, 177-199.

G.P. Cherepanov, Crack propagation in continuous media. *USSR, J Applied Math and Mech, Translation*, 1967, 31, 504.

I. Constable, J. G. Williams, L.E. Culver, Notch root radii effects in the fatigue of polymers. *Int J Fracture Mech*, 1970, 6, 3, 279-285.

Cornell Fracture Group, FRANC2D and FRANC3D, <http://www.cfg.cornell.edu>, 2002.

B. Cotterell, J. R. Rice, Slightly curved or kinked cracks. *Int J Fracture*, 1980, 16, 155-169.

A.U. DeKoning and C.J. Lof, In "Proceedings of the Third International Conference on Numerical Methods in Fracture Mechanics, Swansea, 1984", eds. A.R. Luxmoore and D.R.J. Owen, Pineridge Press, Swansea. U.K., 1984, pp.195-203.

H.G. deLorenzi, On the energy release rate and the J-integral for 3-D crack configurations. *Int J Fracture*, 1982, 19, 183-193.

H.G. deLorenzi, Energy release rate calculations by the finite element method. *Engng Fracture Mech*, 1985, 21, 129-143.

D.L. Destyunder, M. Diaoua, and S. Lescure, Quelques remarques sur la mecanique de la rupture elastique. *J Mecanique Theorique et Appliquee*, 1983, 2, 113-135.

D.S. Dugdale, Yielding in steel sheets containing slits, *J Mech Physics Solids*, 1960, 8, 100-104.

F. Erdogan, G. C. Sih, On the extension of plates under plane loading and transverse shear, *J Basic Engng*, ASME, 1963, 85D, 4, 519-527.

T. Fett, A Green's function for T-stresses in an edge-cracked rectangular plate. *Engng Fracture Mech*, 1997, 57, 365-373.

T. Fett, A Compendium of T-stress Solutions. Institut für Materialforschung, Karlsruhe, Report FZKA 6057, February 1998.

I. Finnie, A. Saith, A note on the angled crack problem and the directional stability of cracks. *Int J Fracture*, 1973, 9, 484-486.

C.E. Freese and D.M. Tracey, The natural triangle versus collapsed quadrilateral for elastic crack analysis. *Int J Fracture*, 1976, 12, 767-770.

H. Gao and J. R. Rice, Shear stress intensity factors for a planar crack with slightly curved front. *J Applied Mechanics*, 1986, 53, 774-778.

H. Gao and J. R. Rice, Somewhat circular tensile cracks. *Int J Fracture*, 1986, 33, 155-174.

H. Gao and J. R. Rice, Nearly circular connections of elastic half spaces. *J Applied Mechanics*, 1987, 54, 627-634.

H. Gao and J. R. Rice, A first-order perturbation analysis of crack trapping by arrays of

obstacles. *J Applied Mechanics*, 1989, 56, 828-836.

R.J. Goode, Identification of Fracture Plane Orientation. *Materials Research and Standards (MIRSA)*, ASTM, 1972, 12, 9. (see also ASTM E1823).

B. Gross and J. E. Srawley, Stress intensity factors for a single-edge-notch tension specimen by boundary collocation of a stress function. NASA, Technical Note, D-2395, 1964.

M.L. Gruber, C. J. Mazur, K. E. Wilkins, and R. E. Worden, Investigation of Fuselage Structure Subject to Widespread Fatigue Damage. Technical Report DOT/FAA/AR-95/47, FAA, February 1996.

R.B. Haber and M.K. Koh, Explicit expressions for energy-release rates using virtual crack extensions. *Int J Num Meth Engng*, 1985, 21, 301-278.

R.J. Hartranft and G. Sih, Effect of plate thickness on the bending stress distribution around through cracks. *J Math and Physics*, 1968, 47, 276-291.

R.J. Hartranft and G. C. Sih, An approximate three-dimensional theory of plates with application to crack problems. *Int. J. Engng. Sci*, 1970, 8, 8, 711-729.

T.K. Hellen, On the method of virtual crack extension. *Int J Num Meth Engng*, 1975, 9, 187-207.

R.D. Henshell and K.G. Shaw, Crack tip finite elements are unnecessary. *Int J Num Meth Engng*, 1975, 9, 495-507.

H.D. Hibbitt, Some properties of singular isoparametric elements. *Int J Num Meth Engng*, 1977, 11, 180-184.

A. Hoenig, Near-Tip behavior of a crack in a plane anisotropic elastic body. *Engng Fracture Mech*, 1982, 16, 393-403.

Hui and Zehnder, A theory for the fracture of thin plates subjected to bending and twisting moments. *Int. J. Fracture*, 1993, 61, 211-229.

M.A. Hussain, L.F. Coffin, and K.A. Zaleski, Three dimensional singular elements. *Computers & Structures*, 1981, 13, 595-599.

M.A. Hussain, S. L. Pu, and J. H. Underwood, in "Fracture Analysis, ASTM STP 560", ASTM, Philadelphia, 1974, pp. 2-28.

C. G. Hwang, P. A. Warwzynek, A. K. Tayebi and A. R. Ingraffea, On the virtual crack

extension method for calculating rates of energy release rate. *Engng Fracture Mech*, 1998, 59, 4, 521-542.

A.R. Ingraffea, and C. Manu, Stress-Intensity factor computations in three dimensions. *Int J Num Meth Engng*, 1980, 15, 1427-1445.

G.R. Irwin, Analysis of stresses and strains near the end of a crack traversing a plate. *J Applied Mech*, 1957, 24, 361-364.

G.R. Irwin, In "Proceedings of the 7th Sagamore Ordnance Materials Conference on Mechanics & Metals Behavior of Sheet Materials, Racquette Lake, NY, 1960", Syracuse University, 1960, pp. 463-478.

G.R Irwin, Crack extension force for a part-through crack in a plate. *Trans. ASME. Ser. E, J. Appl. Mech*, 1962, 29, 651-654.

M. Ishida, Effect of width and length on stress intensity factors of internally cracked plates under various boundary conditions. *Int J Fracture*, 1971, 7, 3, 301-316.

H. Ishikawa, H. Kitagawa, and H. Okamura, In "Proceedings of the 3rd International Conference on Mechanical Behavior of Materials, Cambridge, England, 1979", eds. K.

J. Miller and R. F. Smith, Pergamon Press, pp.447-455.

H. Ishikawa, A finite element analysis of stress intensity factors for combined tensile and shear loading by only a virtual crack extension. *Int J Fracture*, 1980, 16, 243-246.

M. Isida, T. Nishino, Formulae of stress intensity factors at the tips of kinked cracks under various loadings. *Engng Fracture Mech*, 1990, 36, 5, 697-711.

M. James, A Plane Stress Finite Element Model for Elastic Plastic Mode I/II Crack Growth. Ph.D. Dissertation, Department of Mechanical and Nuclear Engineering, Kansas State University, 1998.

P. Joseph and F. Erdogan, Surface crack problems in plates. *Int J Fracture*, 1989, 41, 105-131.

L.M. Keer, S. Nemat-Nasser and K.S. Parthar, Unstable growth of thermally induced interacting cracks in brittle solids: further results. *Int J Solids and Structures*, 1978, 15, 111-126.

A.P. Kfoury, Some evaluations of the elastic T-term using Eshelby's method. *Int J Fracture*, 1986, 30, 301-315.

A.P. Kfoury, Crack extension under mixed-mode loading in an anisotropic mode-symmetric material in respect of resistance to fracture. *Fatigue & Fracture of Engng Materials & Structures*, 1996, 19,1, 27-38.

B. Knops, Numerical Simulation of Crack Growth in Pressurized Fuselages. Ph.D. Thesis, Delft University of Technology, September, 1994.

J.K. Knowles and N.M. Wang, On bending of an elastic plate containing a crack. *J Math and Physics*, 1960, 39, 223-236.

R.W.j. Koers, Use of modified standard 20-node isoparametric brick elements for representing stress/strain fields at a crack tip for elastic and perfectly plastic material. *Int J Fracture*, 1989, 40, 79-110.

K. Kopenhoefer, A.S. Gullerund, Ruggieri, R.H. Dodds, and B.E. Healy, WARP3D: Dynamic Nonlinear Analysis of Solids Using a Preconditioned Conjugate Gradient Software Architecture, Department of Civil Engineering, University of Illinois at Urbana-Champaign, Urbana, Illinois. Report number UILU-ENG-94-2017, 1994.

M. Kosai, A. S. Kobayashi, M. Ramulu, in "Proceedings of International Workshop on Structural Integrity of Aging Airplanes, Atlanta, 1992", Atlanta Technology Publications, Atlanta, GA, pp.443-457.

S.G. Larsson, A. J. Carlsson, Influence of non-singular stress terms and specimen geometry on small-scale yielding at crack tips in elastic-plastic materials. *J Mech Physics of Solids*, 1973, 21, 263-277.

P.S. Leevers, J. C. Radon, Inherent stress biaxiality in various fracture specimen geometries. *Int J Fracture*, 1982,19, 311-325.

F. Lemant, A. Pineau, Mixed mode fracture of a brittle orthotropic material—example of strongly textured zinc sheets. *Engng Fracture Mech*, 1981, 14, 91-105.

F.Z. Li, C.F. Shih, and A. Needleman, A Comparison of methods for calculating energy release rates. *Engng Fracture Mech*, 1985, 21, 405-421.

S.C. Lin, and J.F. Abel, A variational approach for a new direct-integration form of the virtual crack extension methods. *Int J Fracture*, 1988, 28, 217-235.

S.C. Liu, Crack growth and failure of aluminium plate under in-plane shear. *AIAA Journal*, 1974, 12, 180-185.

T.M. Maccagno, J. F. Knott, The fracture behaviour of PMMA in mixed modes I and II.

Engng Fracture Mech, 1989, 34, 1, 65-86.

T.M. Maccagno, J. F. Knott, The low temperature brittle fracture behaviour of steel in mixed modes I and II. Engng Fracture Mech, 1991, 38, 2/3, 111-128.

S.K. Maiti, R. A. Smith, Comparison of criteria for mixed-mode brittle fracture based on the preinstability stress-strain field. Part I: Slit and elliptical cracks under uniaxial tensile loading. Int J Fracture, 1983, 23, 281-295.

C. Manu, Quarter-point elements for curved crack fronts. Computers & Structures, 1983, 17, 227-231.

C. Manu, Complete quadratic isoparametric finite elements in fracture mechanics analysis. Int J Num Meth Engng, 1985, 21, 1547-1553.

K. P. Meade, and L. M. Keer, On the problem of a pair of point forces applied to the faces of a semi-infinite plane crack. J Elasticity, 1984, 14, 3-14.

K. P. Meade, and L. M. Keer, Stress intensity factors for semi-infinite plane crack with a wavy front. J Elasticity, 1984, 14, 79-92.

B. Moran, and C.F. Shih, A general treatment of crack tip contour integrals. Int J

Fracture, 1987, 35, 295-310.

K. B. Narayana, A general procedure for modified crack closure integral in 3D problems with cracks. Engng Fracture Mech, 1994, 48, 167-176.

S. Nemat-Nasser, Stability of a system of interacting cracks. Letters in Appl. Engng and Science, 1978a, 16, 277-285.

S. Nemat-Nasser, L.M. Keer and K.S. Parihar, Unstable growth of thermally induced interacting cracks in brittle solids. Int J Solids Structures, 1978b, 14, 409-430.

S. Nemat-Nasser, Y. Sumi and L.M. Keer, Unstable growth of tension cracks in brittle solids: stable and unstable bifurcations, snap-through, and imperfection sensitivity. Int J Solids Structures, 1980, 16, 1017-1035.

J.C. Newman, Jr. and I. S. Raju, "Stress intensity factors equations for cracks in three-dimensional finite bodies". NASA Technical Memorandum 83200, 1981, 1-49.

Q. S. Nguyen, In "Proceedings of I.U.T.A.M. Symposium on Variational Methods in the Mechanics of Solids, Oxford, 1980", ed. S. Nemat-Nasser, Pergamon Press, 1980, pp. 254-259.

Q. S. Nguyen, C. Stolz and G. Debruyne, Energy methods in fracture mechanics: stability, bifurcation and second variations. *Eur. J. Mech., A/Solids*, 1990, 9,2, 157-173.

S. Nguyen, Bifurcation and stability in dissipative media (plasticity, friction, fracture). *Appl. Mech. Rev.* 1994, 47, 1, Part 1, 1-31.

G.P. Nikishkov, and S.N. Atluri, Calculation of fracture mechanics parameters for an arbitrary three-dimensional crack, by the 'equivalent domain integral' method. *Int J Num Meth Engng*, 1987, 24, 1801-1827.

S.G. Papaioannou, P.D. Hilton, and R.A. Lucas, A finite element method for calculating stress intensity factors and its application to composites. *Engng Fracture Mech*, 1974, 6, 807-823.

D.M. Parks, Stiffness derivative finite element technique for determination of crack-tip stress intensity factors. *Int J Fracture*, 1974, 10, 487-502.

R.G. Pettit, J.C. Newman, M.S. Domack, In "Proceedings of the 19th Symposium of the International Committee on Aeronautical Fatigue, Vol II, 1997, Edinburgh, Scotland", eds. R. Cook, P. Poole, EMAS Publishing, pp. 819-830.

R.G. Pettit, J. J. Wang, C. Toh, Integral Airframe Structures (IAS)—Validated Feasibility Study of Integrally Stiffened Metallic Fuselage Panels for Reducing Manufacturing Cost. Boeing Report CRAD-9306-TR-4542, NASA contract NAS1-20014, Task 34, November, 1998 (See also NASA CR-2000-209342, May 2000).

L.P. Pook, The effect of crack angle on fracture toughness. *Engng Fracture Mech*, 1971, 3, 205-218.

D.O. Potyondy, A Methodology for Simulation of Curvilinear Crack Growth in Pressurized Shells. Ph.D. Thesis, Cornell University, August 1993.

D.O. Potyondy, P. A. Wawrzynek, and A. R. Ingraffea, Discrete crack growth analysis methodology for through cracks in pressurized fuselage structures. *Int J Num Methods in Engng*, 1995, 38, 1611-1633.

I.S. Raju, Calculation of strain-energy release rate with high order and singular Finite elements. *Engng Fracture Mech*, 1987, 28, 251-274.

T.S. Ramamurthy, T. Krishnamurthy, K. Badari Narayana, K. Vijayakumar, and B. Dattaguru, Modified crack closure integral method with quarter point elements. *Mechanics Research Communications*, 1986, 13, 179-186.

M. Ramulu, A. Kobayashi, Dynamic crack curving—a photoelastic evaluation. *Exper Mech*, 1983, 23, 1-9.

C.C. Rankin, F. A. Brogan, W. A. Loden, and H. D. Cabiness, STAGS User Manual Version 2.4. Lockheed Martin Missiles & Space Co., Inc., Advanced Technology Center, 1997.

E. Reissner, On bending of elastic plates, *Quarterly of Applied Math*, 1947-48, 5, 55-68.

J. Rice, A path independent integral and the approximate analysis of strain concentrations by notches and cracks. *J Applied Mech*, 1968, 35, 379-386.

J. R. Rice, First-order variation in elastic fields due to variation in location of a planar crack front. *J Applied Mech*, 1985, 52, 571-579.

J. Rice, M. A. Johnson, In “Inelastic Behavior of Solids”, McGraw Hill, New York, 1969, pp.641-690.

E.R. Rybicki and M.F. Kanninen, A finite element calculation of stress intensity factors by a modified crack closure integral. *Engng Fracture Mech*, 1977, 9, 931-938.

A.S. Selvaratinam, J. G. Goree, T-stress based fracture model for cracks in isotropic

materials. *Engng Fracture Mech*, 1998, 60, 5-6, 543-561.

T.-L. Sham, The determination of the elastic T-term using higher order weight functions. *Int J Fracture*, 1991, 48, 81-102.

C.F. Shih, H.G. Delorenzi, and M.D. German, Crack extension modeling with singular quadratic isoparametric elements. *Int J Fracture*, 1976, 1, 647-651.

M. Shirmohamadi, Stable Crack Growth Trajectories and Fracture Due to Interacting Cracks, Ph. D. Dissertation, University of California at Berkely, 1995.

G.C. Sih, P.C. Paris, and G.R. Paris, On cracks in rectilinearly anisotropic bodies. *Int J Fracture Mechans*, 1965, 1, 189-203.

G.C. Sih, Strain-energy-density factor applied to mixed-mode crack problems, *Int J Fracture*, 1974, 10, 305-321.

R. Singh, B. Carter, P. Wawrzynek, A. Ingraffea, Universal crack closure integral for SIF estimation. *Engng Fracture Mech*, 1998, 60, 133-146.

J. Sladek, E. B. Becker, R. S. Dunham, A contour integral computation of mixed-mode stress intensity factors. *Int J Fracture*, 1976, 12, 359-368.

N. Sneddon, The distribution of stress in the neighborhood of a crack in an elastic solid.

Proc. Roy. Soc. London, Ser. A, 1946, 187, 229-250.

V.E. Souma and D. Schwemmer, Numerical evaluation of the quarter-point crack tip element. Int J Num Meth Engng, 1984, 20, 1629-1641.

J. Sousa, Three-dimensional simulation of near-wellbore phenomena related to hydraulic fracturing from a perforated wellbore. Ph. D. Thesis, Cornell University, Ithaca, NY, 1992.

L. Spievak, D. Lewicki, P. Wawrzynek, A. Ingraffea, Simulating fatigue crack growth in spiral bevel gears. Engng Fracture Mech, 2001, 68, 1, 53-76.

M. Stern, E.B. Becker, and R.S. Dunham, A contour integral computation of mixed-mode stress intensity factors. Int J Fracture, 1976, 12, 359-368.

T.J. Stone, I. Babuska, A numerical method with a posteriori error estimation for determining the path taken by a propagating crack. Computational Methods in Applied Mech and Engng, 1998, 160, 245-271.

R. Streit, I. Finnie, An experimental investigation of crack-path directional stability. *Exper Mech*, 1980, 20, 17-23.

Y. Sumi, S. Nemat-Nasser and L.M. Keer, A new combined analytical and finite-element solution method for stability analysis of the growth of interacting tension cracks in brittle solids. *Int J Engng Science*, 1980, 18, 211-224.

Y. Sumi, S. Nemat-Nasser, L. M. Keer, On crack path instability in a finite body. *Engng Fracture Mech*, 1985, 22, 759-771.

X. Suo and A. Combescure, Double virtual crack extension method for crack growth stability assessment. *Int J Fracture*, 1992, 57, 127-150.

M. A. Sutton, W. Zhao, M. L. Boone, A.P. Reynolds, and D. S. Dawicke, Prediction of crack growth direction for mode I/II loading using small-scale yielding and void initiation/growth concepts. *Int J Fracture*, 1997, 83, 275-290.

M.A. Sutton, X. Deng, F. Ma, J. C. Newman, M. James, Development and application of a COD-based mixed-mode fracture criterion. *Int J Solids and Structures*, 2000, (in press).

B.A. Szabó and I. Babuška, "Finite Element Analysis," John Wiley & Sons, Inc. New

York, 1991.

P.S. Theocaris, N. P. Andrianopoulos, A modified strain energy density criterion applied to crack propagation. *J Applied Mech*, 1982,49,1, 81-86.

P.S. Theocaris, Variation on the theme of fracture criteria. *Engng Fracture Mech*, 1989, 33, 205-214.

S. Timoshenko and Woinowsky-Krieger, "Theory of Plates and Shells", McGraw-Hill, New York, 1959.

P. Tong, T.H.H. Pian, and S.J. Lasry, A hybrid element approach to crack problems in plane elasticity. *Int J Num Meth Engng*, 1973, 7, 1031-1036.

D.M. Tracey, Finite elements for determination of crack tip elastic stress intensity Factors. *Engng Fracture Mech*, 1971, 3, 255-256.

D.M. Tracey, Discussion of 'On the use of isoparametric finite elements in linear fracture mechanics', by R.S. Barsoum. *Int J Num Meth Engng* 1977, 11, 401-402.

A. Ural, A. R. Ingraffea, P. Wawrzynek, D. Lewicki, Simulating fatigue crack growth in spiral bevel gears, NASA TR, in press, 2002.

M.J. Viz, D.O. Potyondy, A.T. Zehnder, C.C. Rankin, and E. Riks, Computation of membrane and bending stress intensity factors for thin, cracked plates. *Int J Fracture*, 1995, 72, 21-38.

N.M Wang, Twisting of an elastic plate containing a crack. *Int J Fracture Mech*, 1970, 6, 367-378.

P.A. Wawrzynek, A. R. Ingraffea, Interactive finite-element analysis of fracture processes: an integrated approach. *Theo Applied Fracture Mech*, 1987, 8, 137-150.

A.A. Wells, In "Proceedings of the Crack Propagation Symposium, 1961, Cranfield", College of Aeronautics, Cranfield, 1962, 1, Paper 84.

M.L. Williams, On the stress distribution at the base of a stationary crack. *ASME Transactions, J Applied Mech*, 1957, 24, 109-114.

M.L. Williams, The bending stress distribution at the base of a stationary crack. *ASME Transactions, J Applied Mech*, 1961, 28, 78-82.

M.L. Williams, P. D. Ewing, Fracture under complex stress--the angled crack problem. *Int J Fracture Mech*, 1972, 8, 441-446.

J.F. Yau, S.S. Wang, and H.T. Corten, A mixed-mode crack analysis of isotropic solids using conservation laws of elasticity. *J Applied Mech*, 1980, 47, 335-341.

L.A. Ying, A note on the singularity and the strain energy of singular elements. *Int J Num Meth Engng*, 1982, 18, 31-39.

F.G. Yuan, S. Yang, in “Proceedings of the 39th AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, Long Beach, CA, April 1998”, AIAA Paper #98-2025.