

Pian, Theodore H. H.; Tong, Pin

Basis of finite element methods for solid continua. (English) Zbl 0252.73052
Int. J. Numer. Methods Eng. 1, 3-28 (1969).

For a scan of this review see the [web version](#).

MSC:

74S05 Finite element methods applied to problems in solid mechanics

Cited in **68** Documents

Full Text: [DOI](#)

References:

- [1] Variational Methods in Elasticity and Plasticity. Pergamon Press. Oxford. 1968. · [Zbl 0164.26001](#)
- [2] Courant, Bull. Am. math. Soc. 49 pp 1– (1943)
- [3] Prager, Q. appl. Math. 5 pp 241– (1947)
- [4] The Hypercircle in Mathematical Physics, Cambridge University Press. 1957.
- [5] Turner, J. aeronaut. Sci. 23 pp 9– (1956) · [doi:10.2514/8.3664](#)
- [6] Melosh, AIAA Jnl. 1 pp 7– (1963) · [doi:10.2514/3.1869](#)
- [7] Jones, AIAA Jnl. 2 pp 5– (1964)
- [8] A Correlation Study of Methods of Matrix Structural Analysis, AGARDograph 69, Pergamon Press, Oxford, 1964.
- [9] Pian, AIAA Jnl. 2 pp 1333– (1964)
- [10] Upper and Lower Bounds in Matrix Structural Analysis, AGARDograph 72, 165-201, Pergamon Press, Oxford, 1964.
- [11] Herrmann, AIAA Jnl. 3 pp 10– (1965)
- [12] 'A Bending Analysis for Plates', Proc. Conf. on Matrix Methods in Structural Mechanics, AFFDL-TR-66-80, 577-604 (1965).
- [13] A Formulation of Matrix Displacement Method. Dept. of Aeronautics and Astronautics, M.I.T., 1966.
- [14] and , 'A Variational Principle and the Convergence of a Finite-Element Method Based on Assumed Stress Distribution', AFOSR TR-68-0348, M.I.T. ASRL. TR-144-1 (1968), paper to be published in *Int. Jnl Solids & Structs* (G.B.).
- [15] Reissner, J. Math. Phys. 29 pp 90– (1950) · [Zbl 0039.40502](#) · [doi:10.1002/sapm195029190](#)
- [16] A Mixed Finite Element Method for thin Shell Analysis, Ph.D. Thesis, Department of Civil Engineering, M.I.T., 1968.
- [17] Tong, *Int. Jnl Solids & Structs* (G.B.) 3 pp 865– (1967)
- [18] 'Displacement and Equilibrium Models in the Finite Element Method', in *Stress Analysis*, (Ed. and), Wiley, London, 1965, Chap. 9.
- [19] 'An Assumed Stress Finite Element Method for an Incompressible and Near-incompressible Material', paper to be published in *Int. Jnl Solids & Structs* (G.B.).
- [20] Herrmann, *J. of Mech., Div. ASCE* 93 (1967)
- [21] and , 'Finite Element Stiffness Matrices for Analysis of Plate Bending', Proc. Conf. on Matrix Methods in Structural Mechanics, AFFDL-TR-66-80, 515-546 (1965).
- [22] and , 'The Generation of Interelement, Compatible Stiffness and Mass Matrices by the Use of Interpolation Formulas', AFFDL-TR-66-80, 397-444 (1965).
- [23] Deák, AIAA Jnl. 5 pp 1– (1967)
- [24] , and , 'Triangular Elements in Plate Bending–Conforming and Monconforming Solution', Proc. Conf. on Matrix Methods in Structural Mechanics, AFFDL-TR-66-80, 547-576 (1965).
- [25] 'Bending and Stretching of Plates–Special Models for Upper and Lower Bounds', Proc. Conf. on Matrix. Methods in Structural Mechancis, AFFDL-TR-66-80, 863-886 (1965).
- [26] de Veubeke, *Int. Jnl Solids & Structs* (G.B.) 4 pp 1– (1968)
- [27] 'Element Stiffness Matrices for Boundary Compatibility and for Prescribed Boundary Stresses' Proc. Conf. on Matrix Methods in Structural Mechanics, AFFDL-TR-66-80, 457-427 (1965).
- [28] Severn, *Proc. Instn Civ. Engrs* 34 pp 153– (1966) · [doi:10.1680/iicep.1966.8984](#)
- [29] and , 'Rationalization in Deriving Element Stiffness Matrix by Assumed Stress Approach', Paper Presented at 2nd Conference on Matrix Methods in Structural Mechanics, Wright Patterson Air Force Base, Ohio, 1968.

- [30] de Veubeke, *Int. Jnl Solids & Structs (G.B.)* 4 pp 447– (1968)
- [31] and , 'Upper and Lower Bounds to Structural Deformations by Dual Analysis in Finite Elements', AFFDL-TR-66-199 (1967).
- [32] Morley, *Aeronaut. Q.* 19 pp 149– (1968)
- [33] , and , 'On the Application of Generalized Variational Principles in the Finite Element Method, AIAA, Paper No. 68-290, presented at AIAA/ASME 9th Structures, Structural Dynamics and Materials Conference, Palm Springs, California (1968)
- [34] A New Finite Element Model for Solid Continua', AFOSR-TR-68-1860, M.I.T. ASRL. TR-144-2 (1968).
- [35] de Veubeke, *Jnl Strain Analysis* 2 pp 4– (1967)
- [36] 'Dual Finite Element Method for Stretching and Bending of Plates' M.I.T. Dept. of Civil Engineering, Rept. R67-16 (1967).

This reference list is based on information provided by the publisher or from digital mathematics libraries. Its items are heuristically matched to zbMATH identifiers and may contain data conversion errors. It attempts to reflect the references listed in the original paper as accurately as possible without claiming the completeness or perfect precision of the matching.