虛擬頻率與假根問題

海洋大學河海工程系 陳正宗博士

References

[1] Achenbach JD, Kechter GE and Xu YL (1988), Off-boundary approach to the boundary element method, Computer Methods in Applied Mechanics and Engineering, Vol.70, pp.191-201.

[2] Amini S and Wilton DT (1986), An investigation of boundary element methods for the exterior acoustic problem, Computer Methods in Applied Mechanics and Engineering, Vol.54, pp.49-65.

[3] Amini S (1993), Boundary integral solution of the exterior Helmholtz problem, Computational Mechanics, Vol.13, pp.2-11.

[4] Amini S and Kirkup SM (1995), Solution of Helmholtz equation in the exterior domain by elementary boundary integral methods, Journal of Computational Physics, Vol.118, pp.208-221.

[5] Amini S and Maines ND (1996), Regularization of strongly singular integrals in boundary integral equations, Communications in Numerical Methods in Engineering, Vol.12, pp.787-793.

[6] Amini S and Maines ND (1998), Preconditioned krylov subspace methods for boundary element solution of the Helmholtz equation, International Journal for Numerical Methods in Engineering, Vol.41, pp.875-898.

[7] Amini S (1998), On the boundary integral operators for Laplace and Helmholtz equations and their discretisations, Engineering Analysis with Boundary Elements, Vol.23, pp.327-337.

[8] Andreasen Mogens G (1964), Scattering from parallel metallic cylinders with arbitrary cross section. IEEE Trans. Antennas and Propagation AP-12, pp.746-754 .

[9] Banaugh RP and Goldsmith W (1963), Diffraction of steady elastic waves by surface of arbitrary shape, The Journal of the Acoustical Society of America, Vol.35, No.10, pp.1590-1601.

[10] Banerjee PK and Shaw RP (1982), Boundary integral equation methods applied to wave problems, Chapter 6, in Developments in Boundary Element Methods,Vol.2, edited by P. K. Banerjee and R. P. Shaw, pp.121-153.

[11] Bell WA, Meyer WL and Zinn B (1977), Predicting the acoustics of arbitrarily shaped bodies using an integral approach, AIAA Journal, Vol.15, No.6, pp.813-820.

[12] Ben-porat G and Givoli D (1995), Solution of unbounded domain problems using elliptic artificial boundaries, Commun. Numer. Meth. Engng., Vol.11, pp.735-741.

[13] Benthien W and Schenck A (1997), Nonexistence and nonuniqueness problems associated with integral equation methods in acoustics, Computers and Structures, Vol.65, No.3, pp.295-305.

[14] Boffi D, Brezzi F and Gastaldi L (1997), On the convergence of eigenvalues for mixed formulations, Annali della Scuola Normale Superiore di Pisa - Classe di Scienze - Serie IV, Vol.25, pp.131-154.

[15] Boffi D, Duran RG and Gastaldi L (1999), A remark on spurious eigenvalues in a square, Applied Mathematics Letters, Vol.12, pp.107-114.

[16] Boffi D, Fernandes P, Gastald L and Perugia I (1999), Computational models of electromagnetic resonators : analysis edge element approximation, SIAM J. Numer. ANAL., Vol.36, No.4, pp.1264-1290.

[17] Boffi D (2000), Fortin operator and discrete compactness for edge elements, Numerische Mathematik, Vol.87, pp.229-246.

[18] Boffi D, Brezzi F and Castaldi L (2000), On the problem of spurious eigenvalues in the approximation of linear elliptic problems in mixed form, Mathematics of Computation, Vol.69, pp.121-140.

[19] Boffi D, Farina M and Gastaldi L (2001), On the approximation of Maxwell's eigenproblem in grneral 2D domain, Computers and Structures, Vol.79, pp.1089-1096.

[20] Boffi D (2001), A note on the de rham complex and a discrete compactness property, Applied Mathematics Letters, Vol.14, pp.33-38.

[21] Bouchet L, Loyau T, Hamzaoui N and Boisson C (2000), Calculation of acoustic radiation using equivalent-sphere methods, J. Acoust. Soc. Am., Vol.107, No.5, pp.2387-2397.

[22] Brod K (1984), On the uniqueness of solution for all wavenumbers in acoustic radiation, J. Acoust. Soc. Am., Vol.76, No.4, pp.1238-1243.

[23] Burton AJ and Miller GF (1971), The application of integral equation methods to the numerical solution of some exterior boundary-value problems, Proc. Roy. Soc.Lond. A., Vol.323, pp.201-210.

[24] Cannillo V and Mancuso M (2000), Spurious resonances in numerical time integration methods for linear dynamics, Journal of Sound Vibration, Vol.238, No.3, pp.389-399.

[25] Canning FX (1989), Singular value decomposition of integral equations of EM and applications to the cavity resonance problem, IEEE Transactions Antennas and Propagation, Vol.37, No.9, pp.1156-1163.

[26] Canning FX (1991), Protecting EFIE-based scattering computations from effects of interior reponances, IEEE Transactions Antennas and Propagation, Vol.39, No.11, pp.1545-1552.

[27] Caruthers JE, French JC and Raviprakash GK (1995), Green function discretization for numerical solution of the Helmholtz equation, Journal of Sound and Vibration, Vol.187, No.4, pp.553-568.

[28] Chai JF, Teng TJ, Yeh CS and Shyu WS (2002), Resonance analysis of 2D alluvial valley subjected to seismic wave, J. Acoust. Soc. Am., Vol.112, No.2, pp.430-440.

[29] Chang JR, Yeih W and Chen JT (1999), Determination of natural frequencies and natural modes using the dual BEM in conjunction with the domain partition technique, Computational Mechanics, Vol.24, No.1, pp.29-40, 1999.

[30] Chen IL, Chen JT, Kuo SR and Liang MT (2001), A new method for true and spurious eigensolutions of arbitrary cavities using the combined Helmholtz exterior integral equation formulation method, J. Acoust. Soc. Am., Vol.109, No.3, pp.982-998.

[31] Chen JT (1998), On fictitious frequencies using dual series representation, Mechanics Research Communications, Vol.25, No.5, pp.529-534.

[32] Chen JT and Wong FC (1998), Dual formulation of multiple reciprocity method for the acoustic mode of a cavity with a thin partition, Journal of Sound and Vibration, Vol.217, No.1, pp.75-95.

[33] Chen JT (1999), Recent development of dual bem in acoustic problems, Computer Methods in Applied Mechanics and Engineering, Vol.188, pp.833-845.

[34] Chen JT, Chen KH and Chyuan SW (1999), Numerical experiments for acoustic modes of a square cavity using the dual BEM, Applied Acoustics, Vol.57, No.4, pp.293-325.

[35] Chen JT and Hong H-K (1999), Review of dual boundary element methods with emphasis on hypersingular integrals and divergent series, Applied Mechanics Reviews, ASME, Vol.52, No.1, pp.17-33.

[36] Chen JT, Kuo SR and Chen KH (1999), A nonsingular integral formulation for the Helmholtz eigenproblems of a circular domain, J. Chinese Institute of Engineers, Vol.22,No.6, pp.729-739.

[37] Chen JT, Liang MT, Chen IL, Chyuan SW and Chen KH (1999), Dual boundary element analysis of wave scattering from singularities, Wave Motion, Vol.30, No.4, pp.367-381.

[38] Chen JT, Chen CT, Chen KH and Chen IL (2000), On fictitious frequencies using dual bem for non-uniform radiation problems of a cylinder, Mechanics Research Communications, Vol.27, No.6, pp.685-690.

[39] Chen JT, Huang CX and Wong FC (2000), Determination of spurious eigenvalues and multiplicities of true eigenvalues in the dual multiple reciprocity method using the singular value decomposition technique, J. Sound and Vibration, Vol.230, No.2, pp.203-219.

[40] Chen JT and Kuo SR (2000), On fictitious frequencies using circulants for radiation problems of a cylinder, Mechanics Research Communications, Vol.27, No.1, pp.49-58.

[41] Chen JT , Kuo SR, Chen KH and Cheng YC (2000), Comments on "vibration analysis of arbitrary shaped membranes using non-dimensional dynamic influence function", Journal of Sound and Vibration, Vol.235, No.1, pp.156-171. (SCI and EI)

[42] Chen K and Amini S (1993), Numerical analysis of boundary integral solution of the Helmholtz equation in domains with non-smooth boundaries, IMA Journal of Numerical Analysis, Vol.13, pp.43-66.

[43] Chen LH and Schweikert DG (1963), Sound Radiation from an arbitrary body, JASA, Vol.35, pp.1626-1632.

[44] Chen SH and Liu YJ (1999), A unified boundary element method for the analysis of sound and shell-like structure interactions: I-formulation and verification, The Journal of The Acoustical Society of America, pp.1-36.

[45] Chen PT and Ginberg JH (1992), On the relationship between veering of eigenvalue loci and parameter sensitivity of eigenfunctions, Journal of Vibration and Acoustics, Vol.114, pp.141-147.

[46] Chen PT and Ginsberg JH (1995), Complex power, reciprocity, and radiation modes for submerged bodies, J. Acoust. Soc. Am., Vol.98, No.6, pp.3343-3351.

[47] Chen PT (1997), Vibrations of submerged structures in a heavy acoustic medium using radiation modes, Journal of Sound and Vibration, Vol.208, No.1, pp.55-71.

[48] Chen PT (1997), Relationships between acoustic radiation modes, complex acoustic power, and radiation efficiency, Proceedings of DETC'97, 1997 ASME Design Engineering Technical Conferences.

[49] Chen PT (1999), A modal-type analysis of the interactions for submerged elastic structures with the surrounding heavy acoustic medium, J. Acoust. Soc. Am., Vol.105, No.1, pp.106-120.

[50] Chen PT (1999), Elucidation of the relationship between complex acoustic power and radiation efficiency for vibration bodies, J. Acoust. Soc. Am., Vol.106, No.5, pp.2417-2423.

[51] Chen PT, Ju SH and Cha KC (2000), A symmetric formulation of coupled BEM/FEM in solving responses of submerged elastic structures for large degrees of freedom, Journal of Sound and Vibration, Vol.233, No.2, pp.407-422.

[52] Chen XB (2000), Highly oscillatory of unsteady ship waves, Proc. Instn. Mech. Engrs., Vol.214, Part C, pp.813-823.

[53] Chertock G (1963), Sound radiation from vibration surfaces, J. Acoust. Soc. Am., Vol.36, pp.1305-1313.

[54] Chertock G (1971), Integral equation methods in sound radiation and scattering from arbitrary, Ship Acoustics Department Research and Development Report, Report 3538.

[55] Chien CC, Rajiyah H and Atluri SN (1990), An effective method for solving the hypersingular integral equations in 3-D acoustics, J.Acoust. Soc. Am., Vol.88, No.2, pp.918-937.

[56] Colton D and Kress R (1983), The unique solvability of the null field equations of acoustics, Q. Jl. Mech., Vol.36, pp.87-95.

[57] Colton D and Monk P (1993), On a class of integral equations of the first kind in inverse scattering theory, SIAM J. Appl. Math., Vo1.53, No.3, pp.847-860.

[58] Conciauro G, Bressan M and Zuffada C (1984), Waveguide modes via an integral equation leading to a linear matrix eigenvalue problem, IEEE Transactions on Microwave Theory and Techniques, Vol.MTT-32, No.11, pp.1495-1504.

[59] Copley LG (1966), Integral equation method for radiation from vibration bodies, The Journal of the Acoustic Society of America, Vol.41, No.4, pp.807-816.

[60] Copley LG (1968), Fundamental results concerning integral representations in acoustic radiation, The Journal of the Acoustical Society of America, Vol.44, No.1, pp.28-32.

[61] Corr DG and Davies JB (1972), Computer analysis of the fundamental and higher order modes in single and coupled microstrip, IEEE Transactions on Microwave Theory and Techniques, Vol.MTT-20, No.10, pp.669-678.

[62] Cremers L, Fyfe KR and Sas P (2000), A variable order infinite element for multi-domain boundary element modelling of acoustic radiation and scattering, Applied Acoustics, Vol.59, pp.185-220.

[63] Cunefare KA and Koopmann G(1989), A boundary element method for acoustic radiation valid for all wavenumbers, J. Acoust. Soc. Am., Vol.85, No.1, pp.39-48.

[64] Cutanda V, Juhl PM and Jacobsen F (2001), On the modeling of narrow gaps using the standard boundary element method, J. Acoust. Soc. Am., Vol.109, No.4, pp.1296-1303.

[65] Demkowicz L, Karafiat A and ODen JT (1992), Solution of elastic scattering problems in linear acoustics using h-p boundary element method, Computer Methods in Applied Mechanics and Engineering, Vol.101, pp.251-282.

[66] Demkowicz L and Oden JT (1996), Application of hp-adaptive BE/FE methods to elastic scattering, Computer Methods in Applied Mechanics and Engineering, Vol.133, pp.287-317.

[67] Dokumaci E (1990), A study of the failure of numerical solutions in boundary element analysis of acoustic radiation problems, Journal of Sound and Vibration, Vol.139, No.1, pp.83-97.

[68] Dokumaci E Sarigul AS (1995), Analysis of the near field acoustic radiation characteristics of two radially vibrating spheres by the Helmholtz integral equation formulation and a critical study of the efficacy of the CHIEF overdetermination method in two-body problems, Journal of Sound and Vibration, Vol.187, No.5, pp.781-798.

[69] Duong HAT (1989), On the boundary integral equation for flat cracks, Elastic Wave Propagation(M. F. Carthy and M. A. Hayes edited), pp.443-446.

[70] Ergin AA, Shanker B and Michielssen E (1999), Analysis of transient wave scattering from rigid bodies using a Burton-Miller approach, J. Acoust. Soc. Am., Vol.106, No.5, pp.2396-2404.

[71] Evans DV and Porter R (1997), Near-trapping of waves by circular arrays of vertical cylinders, Applied Ocean Research, Vol.19, pp.83-99.

[72] Fahnline JB and Koopmann GH (1991), A numerical solution foe the general radiation problem based on the combined methods of superposition and singular-value decomposition, J. Acoust. Soc. Am, Vol.90, No.5, pp.2808-2819.

[73] Fawcett JA (2000), Complex-image approximations to the half-space acousto-elastic Green's function, J. Acoust. Soc. Am., Vol.108, No.6, pp.2791-2795.

[74] Fawcett JA (2001), Modeling of high-frequency scattering from objects using a hybrid Kirchhoff/diffraction approach, J. Acoust. Soc. Am., Vol.109, No.4, pp.1312-1319.

[75] Filippi PJT (1977), Layer potentials and acoustic diffraction, Journal of Sound and Vibration, Vol.54, No.4, pp.473-500.

[76] Filippi PJT, Mattei P-O and Maury C (2000), Sound transmission through a thin baffled plate: validation of light fluid approximation with numerical and experimental results, Journal of Sound and Vibration, Vol.229, No.5, pp.1157-1169.

[77] Fishman L, Gautesen AK and Sun Z (1997), Uniform high-frequency approximations of the square root Helmholtz operator symbol, Wave Motion, Vol.26, pp.127-161.

[78] Frank W (1967), Oscillation of cylinders in or below the free surface of deep fluids, Hydromechanics Laboratory Research and Development Report. Report 2375.

[79] Gaul L, Wafner M, Wenzel W and Dumont N (2001), Numerical treatment of acoustic problems with the hybird boundary element method, International Journal of Solids and Structures, Vol.38, pp.1871-1888.

[80] Ganguly AK and Spielman BE (1977), Dispersion characteristics for arbitrarily configured transmission media, IEEE Transactions on Microwave Theory and Techniques, Vol.MTT-25, No.12, pp.1138-1141.

[81] Geng P, Oden JT and Van De Geijn RA (1996), Massively parallel computation for acoustical scattering problems using boundary element methods, Journal of Sound and Vibration, Vol.191, No.1, pp.145-165.

[82] Gennaretti M, Giordani A and Morino L (1999), A third-order boundary element method for exterior acoustics with applications to scattering by rigid and elastic shells, Journal of Sound and Vibration, Vol.222, No.5, pp.699-722.

[83] Ginsberg JH, Chen PT and Pierce AD (1990), Analysis using variational principles of the surface pressure and displacement along an axisymmetrically excited disk in a baffle, J. Acoust. Soc. Am., Vol.88, No.5, pp.548-559.

[84] Givoli D and Vigdergauz S (1994), Finite element analysis of wave scattering from singularities, Wave motion, Vol.20, pp.165-176.

[85] Givoli D and Cohen D (1995), Nonreflecting boundary conditions based on Kirchhoff-Type formulae, J. Comp. Phys., Vol.117, pp.102-113, 1995.

[86] Golberg M (1998), Boundary integral methods: numerical and mathematical aspects, WIT press Boston, Southampton, Computational Mechanics Publications, pp.76-101.

[87] Hadjesfandiari AR and Dargush GF (1999), Computational mechanics based on the theory of boundary eigensolutions, International Journal for Numerical Methods in Engineering, Vol.50, pp.325-346.

[88] Hahn SR, Ferri AA and Ginsberg JH (1991), A review and evaluation of method to alleviate non-uniqueness in the surface Helmholtz integral equation, Structure Acoustics, ASME, NCA-Vol.12/ADM-Vol.128, pp.223-234.

[89] Hall WS and Robertson WH (1988), Standard Helmholtz integral equation calculations near characteristic frequencies, Journal of Sound and Vibration, Vol.126, No.2, pp.367-368.

[90] Hall WS and Robertson WH (1989), Advance boundary element calculations for elastic wave scattering, Elastic Wave Propagation(M. F. Carthy and M. A. Hayes edited), pp.459-464.

[91] Hall WS and Mao XQ (1995), A boundary element investigation of irregular frequencies in electromagnetic scattering, Engineering Analysis with Boundary Elements, Vol.16, pp.245-252.

[92] Harris PJ (1992), A boundary element method for the helmholtz equation using finite part integration, Computer Methods in Applied Mechanics and Engineering, Vol.95, pp.331-342.

[93] Harris PJ and Amini S (1992), On the Burton and Miller boundary integral formulation of the exterior acoustic problem, Trans. ASME, Vo1.114, pp.540-545.

[94] Hsiao GC, Kleinman RE and Schuetiz LS (1989), On variational formulations of boundary value problems for fluid-solid interactions, Elastic Wave Propagation(M. F. Carthy and M. A. Hayes edited), pp.321-326.

[95] Hsiao GC and Wendland WL (1989), Exterior boundary value problems in elastodynamics elastic wave propagation(M. F. Carthy and M. A. Kayes edited), pp.545-550.

[96] Huang IT and Fan C-N (1991), Combined boundary integral equation and null field equation method for hytrodynamic effects of two dimensional exterior wave problems, in Proceedings of the Institute of Mechanical Engineers, IMech Publ..

[97] Huang TH and Lo SW (1987), An application of the BIE method to three-dimensional acoustic radiation problems, Vo1.8, No.6, pp.383-394.

[98] Huang TH and Lo BC (1988), Free vibration analysis of three dimensional elastic bodies by the boundary integral equation method, Bulletin of the College of Engineering, National Taiwan University, Vo1.43, pp.275-300.

[99] Huang TH (1989), Boundary integral equation analysis for radiation and scattering of elastic waves in three dimensions, J. Chinese Institute of Engineers, Vo1.12, No.4, pp.425-438.

[100] Huang TH and Yu FL (1989), Three dimensional acoustic radiation problems with an impedance boundary, The 13th Nat. Conf. on Theoretical and Applied Mechanics, Taichung, Taiwan.

[101] Humphries AR (1993), Spurious solutions of numerical methods for initial value problems, IMA Journal of Numerical Analysis, Vol.13, pp.263-290.

[102] Hwang JY and Chang SC (1991), A retracted boundary integral equation for exterior acoustic problem with using solution for all wavenumbers, J. Acoust. Sec. Am., Vo1.90, No.2, pp.1167-1800.

[103] Hwang WS (1997), Boundary spectral method for acoustic scattering and radiation problems, J. Acoust. Soc. Am., Vol.102, No.1, pp.96-101.

[104] Hwang WS (1997), A boundary integral method for acoustic radiation and scattering, J. Acoust. Soc. Am., Vol.101, No.6, pp.3330-3335.

[105] Hwang WS (1997), Hypersingular boundary integral equations for exterior acoustic problems, J. Acoust. Soc. Am., Vol.101, No.6, pp.3336-3342.

[106] Hwang WS (1999), A boundary spectral method for solving exterior acoustical problems with hypersingular integrals, Int. J. Numer. Meth. Engng. Vol.44, pp.1775-1783.

[107] Hwu TY (2001), Application of Riemann-Green functions on solving linearized Saint-Venant's equations, Journal of Engineering Mechanics, pp.379-381.

[108] Ingber MS and Hickox CE (1992), A modified Burton-Miller algorithm for treating the uniqueness of representation problem for exterior acoustic radiation and scattering problems, Engineering Analysis with Boundary Element, Vol.9, pp.323-329.

[109] Iserles A, Peplow AT and Stuart AM (1991), A unified approach to spurious solutions introduced by time discretisation. Part I: basic theory , SIAM J. Numer. Anal., Vol.28, No.6, pp.1723-1751.

[110] Jeans R and Mathews IC (1992), A comparison of numerical collocation and variational procedures to the hypersingular acoustic integral operator, Comput. Methods Appl. Mech. Engrg., Vol.101, pp.5-26.

[111] John F (1950), On the motion of floating bodies I, Commum Pure Appl. Math., Vol.2, pp.13-57.

[112] John F (1950), On the motion of floating bodies II, Commum Pure Appl. Math., Vol.3, pp.45-101.

[113] Jones DS (1952), The eigenvalues $\nabla^2 u + \lambda u = 0$ of when the boundary conditions are given on semi-infinite domains, Proc. Camb. Phil. Soc., Vol.49, pp.668-684.

[114] Jones DS (1974), Integral equations for the exterior acoustic problem, Q. Jl. Mech., Vol.27, pp.129-142.

[115] Juhl P (1994), A numerical study of the coefficient matrix of the boundary element method near characteristic frequencies, Journal of Sound and Vibration, Vol.175, No.1, pp.39-50.

[116] Juhl P (1998), A note on the convergence of the direct collocation boundary element method, Journal of Sound and Vibration, Vol.212, No.4, pp.703-719.

[117] Kamiya N and Andoh E (1993), Helmholtz eigenvalue analysis by boundary element method, Journal of Sound and Vibration, Vol.160, No.2, pp.279-287.

[118] Kang SC and Ih JG (2001), Use of nonsingular boundary integral formulation for reducing error due to near-field measurements in the boundary element method based near-field acoustic holography, J. Acoust. Soc. Am., Vol.109, No.4, pp.1320-1328.

[119] Karafiat A, Oden JT and Geng P (1993), Variational formulations and hp-boundary element approximations, for hypersingular integral equations for Helmholz exterior boundary-value problems in two dimensions, Int. J. Engng. Sci., Vol.31, No.4, pp.649-672.

[120] Kiefling L and Feng GC (1976), Fluid-structure finite element vibrational analysis, AIAA Journal, Vol.14, No.2, pp.199-203.

[121] Kirkup SM (1991), The computational modelling of acoustic shields by the boundary and shell element method, Computer and Structures, Vol.40, No.5, pp.1177-1183.

[122] Kirkup SM and Amini S (1991), Modal analysis of acoustically-loaded structures via integral equation methods, Computer and Structures, Vol.40, No.5, pp.1279-1285.

[123] Kirkup SM (1992), The influence on the weighting parameter on the improved boundary element solution of the exterior Helmholtz equation, Wave Motion, Vol.15, pp.93-101.

[124] Kirkup SM and Henwood DJ (1992), Computational solution of acoustic radiation problems by Kussmaul's boundary element method, Journal of Sound and Vibration, Vol.158, No.2, pp.293-305.

[125] Kirkup SM and Henwood DJ (1992), Methods for speeding up the boundary element solution of acoustic radiation problems, Trans. ASME, Vol.114, pp.374-380.

[126] Kirkup SM and Amini S (1993), Solution of the Helmholtz eigenvalue problem via the boundary element method, International Journal for Numerical Methods in Engineering, Vol.36, pp.321-330.

[127] Kirkup SM and Henwood DJ (1994), An empirical error analysis of the boundary element method applied to Laplace's equation, Appl. Math. Modelling, Vol.18, pp.32-38.

[128] Kirkup SM (1994), The boundary and shell element method, Appl. Math. Modelling, Vol.18, pp.418-422.

[129] Kirkup SM (1997), Solution of discontinuous interior Helmholtz problems by the boundary and shell element method, Comput. Methods Appl. Mech. Engrg., Vol.140, pp.393-404.

[130] Kitahara M (1985), Boundary integral equation methods in eigenvalue problems of elastodynamics and thin plates, Elsevier, Amsterdam.

[131] Kitahara M and Nakagawa K (1989), Born series approach applied to three dimensional elastodynamic inclusion analysis by BIE methods, Elastic Wave Propagation(M. F. Carthy and M. A. Hayes edited), pp.447-453.

[132] Kleinman RE and Roach GF (1974), Boundary integral equations for the three-dimensional Helmholtz equation, SIAM Review, Vol.16, No.2, pp.214-236.

[133] Kleinman RE and Roach GF (1982), On modified Green functions in exterior problems for the Helmholtz equation. Proc. R. Soc. Lond. A, Vol.383, pp.313-332.

[134] Kobayashi S and Nishimura N (1982), On the indeterminacy of BIE solutions for the exterior problems of time-harmonic elastodynamics and incompressible elastostatics, Proceedings of the Fourth International Seminar, Southampton, England., pp.282-296.

[135] Kobayashi S and Nishimura N (1982), Transient stress analysis of tunnels and caverns of arbitrary shape due to travelling waves, Developments in Boundary Element Methods-2, Chapter.7,pp.177-210.

[136] Konrad A (1986), On the reduction of the number of spurious modes in the vectorial finite-element solution of three-dimensional cavities and waveguides, IEEE Transactions on Microwave Theory and Techniques, Vol.MTT-34, No.2, pp.224-227.

[137] Koo BU, Lee BC and Ih JG (1996), A non-singular boundary integral equation for acoustic problems, Journal of Sound and Vibration, Vol.192, No.1, pp.263-279.

[138] Lautour NJ (1999), A Galerkin method for the numerical analysis of diffraction by a rectangular screen, J. Acoust. Soc. Am., Vol.106, No.6, pp.3072-3080.

[139] Lee C-H and Sclavounos PD (1989), Removing the irregular frequencies from integral equations in wave-body interactions, J. Fluid Mech., Vol.207, pp.393-418.

[140] Lee C-H, Newman JN and Zhu X (1996), An extended boundary integral equation method for the removal of irregular frequency effects, International Journal for Numerical Methods in Fluids, Vol.23, pp.637-660.

[141] Lee L and Wu TW (1993), An enhanced CHIEF method for steady-state elastodynamics, Engineering Analysis with Boundary Elements, Vol.12, pp.75-83.

[142] Li WL, Wu TW and Seybert AF (1994), A half-space boundary element method for acoustic problems with a reflecting plane of arbitrary impedance, Journal of Sound and Vibration, Vol.171, No.2, pp.173-184.

[143] Lin TC (1984),A proof for the Burton and Miller integral equation approach for the helmholtz equation, Journal of Mathematical Analysis and Applications, Vol.103, pp.565-574.

[144] Ling RT and Smith TD (1989), Scattering of acoustic and electromagnetic waves by an airfoil, AIAA Journal, Vol.27, No.3, pp.268-273.

[145] Liu GR, Zhao J, Zheng H and Lam KY (2002), A study on avoiding hyper-singular integrals in exterior acoustic radiation analysis, Applied Acoustics, Vol.63, pp.643-657.

[146] Liu YJ and Rizzo FJ (1992), A weakly singular form of the hypersingular boundary integral equation applied to 3-D acoustic wave problems, Comput. Methods Appl. Mech. Engrg., Vol.96, pp.271-287.

[147] Liu YJ and Rizzo FJ (1997), Scattering of elastic waves from thin shapes in three dimensions using the composite boundary integral equation formulation, J. Acoust. Soc. Am., Vol.102, No.2, pp.926-932.

[148] Liu YJ and Chen SH (1999), A new form of the hypersingular boundary integral equation for 3-D acoustics and its implementation with C^0 boundary elements, Comput. Methods Appl. Mech. Engrg. Vol.173, pp.375-386.

[149] Lou G, Wu TW and Cheng CYR (2000), Letters to the editor: impedance matrix synthesis for multiply connected exhaust network systems using the direct mixed-body Bem. Journal of Sound and Vibration, Vol.238, No.2, pp.351-362.

[150] Malenica S and Chen XB (1998), On the irregular frequencies appearing in wave diffraction-radiation solutions, International Journal of Offshore and Polar Engineering, Vol.8, No.2, pp.110-114.

[151] Martin PA (1980), On the Null-Field equations for the exterior problems of acoustics. Q. Jl. Mech., Vol.27, pp.386-396.

[152] Martin PA(1985), Integral equation methods for multiple scattering problems(I) Acoustics. J. Mech. Appl. Math., Vol.38, pp.105-118 .

[153] Martin PA (1989), Single integral equations for scattering of elastic waves by an elastic inclusion, Elastic Wave Propagation(M.. F. Carthy and M. A. Hayes edited), pp.387-391.

[154] Martin PA (1989), On the scattering of elastic waves by an elastic inclusion in two dimensions, QJMAN.

[155] Martin PA(2002), Multiple scattering and modified Green's functions. J. Math. Anal. Appl., Vol.275, pp.642-656 .

[156] Martinez R (1991), The thin-shape breakdown(TSB) of the Helmholtz integral equation, J. Acoust. Soc. Am., Vol.90, No.5, pp.2728-2738.

[157] Massoudi H and Damaskos NJ (1988), Scattering by a composite and anisotropic circular cylindrical structure : exact solution, Hemisphere Publishing Corporation, pp.71-83.

[158] Mei CC (1978), Numerical methods in water-wave diffraction and radiation, Ann. Rev. Fluid Mech., Vol.10, pp. 393-416.

[159] Meijs JWH, Weier OW, Peters MJ and Oosterrom AV (1989), On numerical accuracy of the boundary element method, IEEE Transactions on Biomedical Engineering, Vol.36, No.10, pp.1038-1049.

[160] Meyer WL, Bell WA and Zinn BT (1978), Boundary integral solutions of three dimensional acoustic radiation problems, Journal of Sound and Vibration, Vol.59, No.2, pp.245-262.

[161] Miller RF (1960), The scattering of a plane wave by a row of small cylinders. Can. J. Phys., Vol.38, pp.272-289.

[162] Mugan A and Hulbert GM (2000), Nonreflecting boundary conditions in acoustics for finite element methods based upon off-surface boundary integral equations, Computer Methods in Applied Mechanics and Engineering, Vol.190, pp.1289-1307.

[163] Ohmatsu S (1983), A new simple method to eliminate the irregular frequencies in the theory of water wave radiation problems, Papers of Ship Research Institute, Vol.70, pp.1-16.

[164] Olsson P , Datta SK and Bostrom A (1989), Scattering of elastic waves by inclusions surrounded by thin interface layers, Elastic Wave Propagation (M. F. Carthy and M. A. Hayes edited), pp.381-386.

[165] Parsons NF and Martin PA (1992), Scattering of water waves by submerged plates using hypersingular integral equations, Appl. Ocean Research, Vol.14, pp.313,321.

[166] Pereira OJBA and Almeida JPMD (2001), Elimination of Spurious static modes in meshes of hybird compatible triangular and tetrahedral finite elements, International Journal of Numerical Methods in Engineering, Vol.50, pp.885-898.

[167] Peterson AF(1990), The interior resonance problem associated with surface integral equations of electromagnetics: numerical consequences and a survey of remedies. Electromagnetics, Vol.10, pp.293-312.

[168] Peterson L (1989), Elastic wave Scattering by two penny-shaped cracks elastic wave propagation(M. F. Carthy and M. A. Hayes edited), pp.437-443.

[169] Photiadis DM (1990), The relationship of singularvalue decomposition to wave-vector filtering in sound radiation problems, J. Acoust. Soc. Am., Vol.88, No.2, pp.1152-1159.

[170] Power H (1995), On the singular distribution for certain irregular frequencies of the direct hypersingular formulation for the exterior acoustic scattering problem, Boundary Elements Communications, Vol.6, pp.11-12.

[171] Provatidis C and Zafiropoulos N (1995), On the 'interior helmkoltz integral equation formulation' in sound radiation problems, Engineering Analysis with Boundary Elements, Vol.26, pp.29-40.

[172] Rahman BMA and Davies JB (1984), Penalty function improvement of waveguide solution by finite element, IEEE Transactions on Microwave Theory and Techniques, Vol.MTT-32, No.8, pp.922-928.

[173] Reut Z (1985), On the boundary integral methods for the exterior acoustic problem, Journal of Sound and Vibration, Vol.103, No.2, pp.297-298.

[174] Rogers PH (1973), Formal solution of the surface Helmholtz integral equation at a nongegenerate characteristic frequency, The Journal of the Acoustical Society of America, Vol.54, No.6, pp.1662-1666.

[175] Schenck HA (1968), Improved integral formulation for acoustic radiation problems, The Journal of the Acoustical Society of America, Vol.44, No.1, pp.41-58.

[176] Schenk HA (1967), Session WE. engineering acoustics workshop: formulation and solution of acoustic radiation problems as integral equations, The Journal of the Acoustical Society of America, Vol.42, No.5, pp.1203-1204.

[177] Schroeder W and Wolff I (1994), The origin of spurious modes in numerical solutions of electromagnetic field eigenvalue problems, IEEE Transactions on Microwave Theory and Techniques, Vol.42, No.4, pp.644-653.

[178] Schroeder W and Guglielmi M (1998), A contour-based approach to the multimode network representation of waveguide transitions, IEEE Transactions on Microwave Theory and Techniques, Vol.46, No.4, pp.441-419.

[179] Schroeder W and Wolff I (1999), A reliable and efficient numerical method for indirect eigenvalue problems arising in waveguide and resonator analysis, International Journal of Numerical Modelling:Electronic Networks, Devices and Fields, Vol.12, pp.197-208.

[180] Schweig E and Bridges WB (1984), Computer analysis of dielectric waveguides: A finite-difference method, IEEE Transactions on Microwave Theory and Techniques, Vol. MTT-32, No.5, pp.531-541.

[181] Segalman DJ and Lobitz DW (1992), A method to overcome computational difficulties in the exterior acoustics problem, J. Acoust. Soc. Am., Vol.91, No.4, pp.1855-1861.

[182] Sestieri A and Carcaterra A (2001), On the spurious in complex envelope displacement analysis, Journal of Sound and Vibration, Vol.240, No.2, pp.293-302.

[183] Seybert AF (1987), A note on methods for circumventing non-uniqueness when using integral equations, Journal of Sound and Vibration, Vol.115, No.1, pp.171-172.

[184] Seybert AF and Rengarajan TK (1987), The use of CHIEF to obtain unique solutions for acoustic radiation using boundary integral equations, J. Aoust. Soc. Am., Vol.81, No.5, pp.1299-1306.

[185] Shaw RP, Fukui T and Wang HC (1988), Boundary integral equation/element methods in computational acoustics, Computational Acoustics: Wave Propagation D Lee, R.L. Sternberg, M.H. Schultz (Editors) Elsevier Science Publishers B.V. (North-Holland), pp.157-176.

[186] Shaw RP, Huang SC and Wang HC (1988), A comparison of the BEM and the T matrix methods (invited contribution).

[187] Shaw RP and Huang SC (1989), The fictitious eigenvalue difficulty in the T-matrix and the BEM methods for exterior wave scattering, J. Acoust. Soc. Am., Vol.86, No.2, pp.839-842.

[188] Simon MJ and Ursell F (1984), Uniqueness in linearized two-dimensional water-wave problems, J. Fluid Mech., Vol.148, pp.137-154.

[189] Sorensen L (1979), Multi-obstacle acoustic scattering in the simple source formulation with accuracy checks. J. Acoust. Soc. Am., Vol.66(5), pp.1536-1541.

[190] Stepanishen PR, Chen HW (1992), Surface pressure and harmonic loading on shells of revolution using an internal source density method, J. Acoust. Soc. Am., Vol.92, pp.2248-2259.

[191] Stepanishen PR, Chen HW (1992), Acoustic harmonic radiation and scattering from shella of revolution using finite element and internal source density methods, J. Acoust. Soc. Am., Vol.92, pp.3343-3357.

[192] Stepanishen PR and Ramakrishna S (1993), Acoustic radiation from cylinders with a plane of symmetry using internal multipole line source distribution.(I), J. Acoust. Soc. Am., Vol.93, pp.658-672.

[193] Stepanishen PR and Ramakrishna S (1993), Acoustic radiation from cylinders with a plane of symmetry using internal multipole line source distribution.(II), J. Acoust. Soc. Am., Vol.93, pp.673-682.

[194] Stojek M, Markiewicz M and Mahrenholtz O (2000), Diffraction loads on multiple vertical cylinders with rectangular cross section by Trefftz-type finite element, Computers and Structures, Vol.75, pp.335-345.

[195] Swaminathan M, Sarkar TK and Adams AT (1992), Computation of TM and TE modes in waveguides based on surface integral formulation, IEEE Transactions on Microwave Theory and Techniques, Vol.40, No.2, pp.285-297.

[196] Teans RA and Mathews IC (1992), Solution of fluid-structure interaction problems using a coupled finite element and variational boundary element technique, J. Acoust. Soc. Am., Vol.88, No.5, pp.2459-2466.

[197] Terai T (1980), On calculation of sound fields around three dimensional objects by integral equation methods, Journal of Sound and Vibration, Vol.69, No.1, pp.71-100.

[198] Tobocman W (1986), Extension of the Helmholtz integral equation method to shorter wavelengths, J. Acoust. Soc. Am., Vol.80, No.6, pp.1828-1837.

[199] Ursell F (1950), Trapping modes in the theory of surface waves, Proc. Camb. Phil. Soc., Vol.47, pp.347-358.

[200] Ursell F (1968), The expansion of water-wave potentials at great distances, Proc. Camb. Phil. Soc., Vol.64, pp.811-826.

[201] Ursell F (1981), Irregular frequencies and the motion of floating bodies, J. Fluid Mech., Vol.105, pp.143-156.

[202] Ursell F (1984), Uniqueness in linearized two-dimensional water-wave problems, J. Fluid Mech., Vol.148, pp.137-154.

[203] Ursell F (1987), Mathematical aspects of trapping modes in the theory of surface waves, J. Fluid Mech., Vol.183, pp.421-437.

[204] Vlahopoulos N and Raveendra ST (1998), Formulation, implementation and validation of multiple connection and free edge constraints in an indirect boundary element formulation, Journal of Sound and Vibration, Vol.210, No.1, pp.137-152.

[205] Waterman PC (1969), New formulation of acoustic scattering, The Journal of the Acoustical Society of America, Vol.45, pp.1417-1429.

[206] Wilton DT, Mathews LC and Jeans RA (1993), A clarification of nonexistence problems with the superposition method, J. Acoust. Soc. Am., Vol.94, No.3, pp.1676-1680.

[207] Winkler JR and Davies JB (1984), Elimination of spurious modes in finite element analysis, Journal of Computational Physics, Vol.56, pp.1-14.

[208] Wu RB (1997), Applications of hybied FEM to 3D electromagnetic problems, 力學會議專題演講投影片.

[209] Wu SW (1992), Coupled finite element and boundary element method for axisymmetric fluid-structure interaction, The Chinese J. Mechanics, Vol.8, No.1, pp.31-41.

[210] Wu SW and Wu SW (1999), A regular boundary integral formulation for acoustic problems with unique solution for all wave numbers, Boundary Elements XXI, edited by C.A. Brebbia and H. Power, pp.487-496.

[211] Wu TW, Seybert AF and Wan GC (1991), On the numerical implementation of a Cauchy principal value integral to insure a unique solution for acoustic radiation and scattering, J. Acoust. Soc. Am., Vol.90, No.1, pp.554-560.

[212] Wu TW and Seybert AF (1991), A weighted residual formulation for the CHIEF method in acoustics, J. Acoust. Soc. Am., Vol.90, No.3, pp.1608-1614.

[213] Wu TW and Wan GC (1992), Numerical modeling of acoustics : Radiation and scattering from thin bodies using principal equation, J. Acoust. Soc. Am., Vol.92, No.5, pp.2900-2906.

[214] Wu TW and Lee L (1993), A choice of interpolation schemes for the boundary element method in elastodynamics, Commun. Num. Engrg., Vol.9, pp.375-385.

[215] Wu TW (1994), On computational aspects of the boundary element method for acoustic radiation and scattering in a perfect waveguide, J. Acoust. Soc. Am., Vol.96, No.6, pp.3733-3743.

[216] Wu TW and Lee L (1994), A direct boundary integral formulation for acoustic radiation in a subsonic uniform flow. Journal of Sound and Vibration. Vol.175, No.1, pp.51-63.

[217] Wu TW (1995), A direct boundary element method for acoustic radiation and scattering from mixed regular and thin bodies, J. Acoust. Soc. Am., Vol.97, No.1, pp.84-91.

[218] Wu TW and Wan GC (1996), Muffler performance studies using a direct mixed-body boundary element method and a three-point method for evaluating transmission loss, Journal of Vibration and Acoustics, Vol.118, pp.479-484.

[219] Wu TW, Zhang P and Cheng CYR (1998), Boundary element analysis of mufflers with an improved method for deriving the four-pole parameters, Journal of Sound and Vibration, Vol.217, No.4, pp.767-779.

[220] Wu TW, Chang CYR and Zhang P (2001), A direct mixed-body boundary element method for packed silencers, JASA submitted.

[221] Wu XF, Pierce AD and Ginsberg JH (1987), Variational method for computing surface acoustic pressure on vibrating bodies, Applied to Transversely Oscillating Disks, IEEE J. Oceanic Eng., OE-12, pp.412-418.

[222] Yang SA (1997), Acoustic by hard or soft body across a wide frequency range by the helmholtz integral equation method, J. Acoust. Soc. Am., Vol.102, No.5, pp.2511-2520.

[223] Yang SA (1999), A boundary integral equation method for two-dimensional acoustic scattering problems, J. Acoust. Soc. Am., Vol.105, No.1, pp.93-105.

[224] Yang SA (2000), An investigation into integral equation methods involving nearly singular kernels for acoustic scattering, Journal of Sound and Vibration, Vol.234, No.2, pp.225-239.

[225] Yang SA (2000), On the singularities of Green's formula and its normal derivative, with a application to surface-wave-body interaction problems, International Journal for Numerical Methods in Engineering, Vol.47, pp.1841-1864.

[226] Yang SA (2000), An application of Chebyshev series expansion method to acoustic scattering problems, 中國民國第二十四屆力學會議論文.

[227] Yeih W, Chen JT, Chen KH and Wong FC (1998), A Study on the Multiple Reciprocity Method and Complex-valued formulation for the Helmholtz equation, Advances in Engineering Software, Vol.29, No.1, pp.1-6. (SCI and EI)

[228] Yeih W, Chang JR and Chen JT (1999), A boundary formulation for calculating moments of an arbitrary closed planar region, Engineering Analysis with Boundary Elements, Vol.23, No.7, pp.611-617. (SCI and EI)

[229] Yeih W, Chang JR, Chang CM and Chen JT (1999), Applications of dual MRM for determining the natural frequencies and natural modes of a rod using the singular value decomposition method, Advances in Engineering Software, Vol.30, pp.459-468. (SCI and EI)

[230] Yeih W, Chen JT and Chang CM (1999), Applications of dual MRM for determining the natural frequencies and natural modes of an Euler-Bernoulli beam using the singular value decomposition method, Engineering Analysis with Boundary Elements, Vol.23, No.4, pp.339-360. (SCI and EI)

[231] Yeh CS and Liu DC (1990), Method of multiple centers expansion (MCE) for acoustic scattering from an obstacle with arbitrary shape.

[232] Young JW and Bertrand JC (1975), Multiple scattering by two cylinders. J. Acoust. Soc. Am., Vol.58, pp.1190-1195.

[233] Zeng X and Bielak J (1994), Stability assessment of a unified variational boundary integral method applicable to thin scatterers with corners, Computer Methods in Applied Mechanics and Engineering, Vol.111, pp.305-321.

[234] Zhang, Wu TW and Lee L (1996), A coupled fem/bem formulation for acoustic radiation in a subsonic non-uniform flow, Journal of Sound and Vibration, Vol.192, No.1, pp.333-347.

[235] Zhang P and Wu TW (1997), A hypersingular integral formulation for acoustic radiation in moving flows, Journal of Sound and Vibration, Vol.206, No.3, pp.309-326.

[236] Zhang P, Wu TW and Finkel R (1999), Parallel computation for acoustic radiation in a subsonic non-uniform flow with a coupled fem/bem formulation, Engineering Analysis with Boundary Elements, Vol.23, pp.139-153.

[237] Zhang Z, Vlahopoulos N, Raveendra ST, Allen T and Zhang KY (2000), A computational acoustic field reconstruction process based on an indirect boundary element formulation, J. Acoust. Soc. Am., Vol.108, No.5, pp.2167-2178.

[238] Zhao J, Liu GR, Zheng H, Cai C and Lam KY (2001), A novel technique in boundary integral equations for analysis acoustic radiation from axisymmetric bodies, Journal of Sound and Vibration, Vol.248, No.3, pp.461-475.

[239] 黃志勇 (1989), 流體-結構動力互制問題之三維分析, 台大應力所博士論文。

[240] 劉導淳 (1989), 流體中彈性體振動及引致散射現象之研究, 台大應力所博士論文。

[241] 鄔蜀威 (1989), A fast robust and accurate procedure for radiation and scattering analysis of submerged elastic axisymmetric bodies, Ph. D. Thesis, Department of Aeronautics, Imperial College, London.

[242] 黃志勇與張善政 (1989), 邊界元素法分割準則之探討, 中華民國第十三屆全國力學會議, pp.851-859.

[243] 簡秋記 (1990), On the evaluation of hypersingular integrals arising in the boundary element method for elasticity and acoustic problems, Ph. D. Thesis, Department of Civil Engineering, Georgia Institute of Technology.

[244] 萬光前 (1992), Boundary element analysis of acoustic thin-body and non-uniqueness problems using a normal derivative integral equation, Ph. D. Thesis, Department of Mechanical Engineering, University of Kentucky.

[245] 陳正宗與洪宏基 (1992), 邊界元素法, 第六章, 第二版, 台北, 新世界出版社。

[246] 簡秋記與李岳峰 (1996), 改良式漢姆荷茲積分式分析聲波散射問題, The Chinese Journal of Mechanics, Vol.12, No.3, pp.363-367.

[247] 劉德源、陳正宗與陳桂鴻 (1999), 二維聲場聲模之邊界積分方程新解法, 中國土木與水利工程學刊, 第十一卷, 第二期, 頁299-310。

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