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Jin G.Y., Ye T.G., Su Z. Structural Vibration: A Uniform Accurate Solution for Laminated Beams, Plates and Shells with General Boundary Conditions, Springer, 2015

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Research Interests

Structural dynamics; Structural vibration and acoustics; Active control of noise and vibration; Room acoustics; Vibrating structures (beams, plates, shells, etc.); Structure-borne noise

Selected Publications

- Jin Guoyong, Ye Tiangui, Su Zhu. Structural Vibration: A Uniform Accurate Solution for Laminated Beams, Plates and Shells with General Boundary Conditions. Springer Berlin Heidelberg, ISBN 978-3-662-46363-5.
- [2] Yang T.J., Jin G.Y., Liu Z.G., Active vibration control technique for marine power plant, Harbin Engineering University Press, ISBN 978-7-81133-550-7 (in Chinese)
- [3] Chen Y.H., Jin G.Y., Liu Z.G. A domain decomposition method for analyzing a coupling between multiple acoustical spaces. Journal of the Acoustical Society of America, 2017, 141(5): 3017-3021
- [4] Jin G.Y., Ma X.L., Liu Z.G., Xuan L.K. Dynamic Analysis of General Rotationally Symmetric Built-Up Structures Using a Modified Fourier Spectral Element Approach. Journal of Vibration and Acoustics -Transactions of the ASME. 2017, 139(2): 021012-1-13
- [5] Yang C.M., Jin G.Y., Xu W.J., Liu Z.G. A Modified Fourier Solution for Free Damped Vibration Analysis of Sandwich Viscoelastic-Core Conical Shells and Annular Plates with Arbitrary Restraints. International Journal of Applied Mechanics, 2017, 8(8): 1650094-1-30
- [6] Ma X.L., Jin G.Y., Shi S.X., Ye T.G., Liu Z.G. An analytical method for vibration analysis of cylindrical shells coupled with annular plate under general elastic boundary and coupling conditions. Journal of Vibration and Control, 2017, 23(2): 305-328
- [7] Jin G.Y., Shi S.X., Liu Z.G. Acoustic modeling of a three-dimensional rectangular opened enclosure coupled with a semi-infinite exterior field at the baffled opening. Journal of the Acoustical Society of America. 2016, 140(5): 3675-3690
- [8] Su Z., Jin G.Y. Vibration analysis of coupled conical-cylindrical-spherical shells using a Fourier spectral element method. Journal of the Acoustical Society of America. 2016, 140(5): 3925-3940

- [9] Ye T.G., Jin G.Y. Elasticity solution for vibration of generally laminated beams by a modified Fourier expansion-based sampling surface method. Computers & Structures, 2016, 167: 115-130.
- [10] Su Z., Jin G.Y., Ye T.G. Vibration analysis and transient response of a functionally graded piezoelectric curved beam with general boundary conditions. Smart Materials and Structures, 2016, 25(6): 065003-1-14.
- [11] Zhang C.Y., Jin G.Y., Ma X.L., Ye T.G. Vibration analysis of circular cylindrical double-shell structures under general coupling and end boundary conditions. Applied Acoustics, 2016, 110: 176-193.
- [12] Su Z., Jin G.Y., Wang Y.L., Ye X.M. A general Fourier formulation for vibration analysis of functionally graded sandwich beams with arbitrary boundary condition and resting on elastic foundations. Acta Mechanica, 2016, 227(5):1493-1514.
- [13] Jin G.Y., Yang C.M., Liu Z.G. Vibration and damping analysis of sandwich viscoelastic-core beam using Reddy's higher-order theory. Composite Structures, 2016, 140: 390-409.
- [14] Jin G.Y., Ye T.G. Wang X.R., Miao X.H. A unified solution for the vibration analysis of FGM doubly-curved shells of revolution with arbitrary boundary conditions. Composites Part B: Engineering, 2016, 89: 230-252.
- [15] Yang C.M., Jin G.Y., Ye X.M., Liu Z.G. A modified Fourier Ritz solution for vibration and damping analysis of sandwich plates with viscoelastic and functionally graded materials, International Journal of Mechanical Sciences, 2016, 106:1-18.
- [16] Jin G.Y., Su Z., Ye T.G., Gao S.Y. Three-dimensional free vibration analysis of functionally graded annular sector plates with general boundary conditions. Composites Part B: Engineering, 2015,83: 352-366.
- [17] Su Z., Jin G.Y., Wang X.R., Miao X.H. Modified Fourier–Ritz Approximation for the Free Vibration Analysis of Laminated Functionally Graded Plates with Elastic Restraints. International Journal of Applied Mechanics, 2015, 7(5): 1550073-1-29.
- [18] Jin G.Y., Yang C.M., Liu Z.G., Gao S.Y., Zhang C.Y. A unified method for the vibration and damping analysis of constrained layer damping cylindrical shells with arbitrary boundary conditions. Compos Struct, 2015, 130:124–142.
- [19] Ye T.G., Jin G.Y., Ye X.M., Wang X.R. A series solution for the vibrations of composite laminated deep curved beams with general boundaries. Compos Struct, 2015, 127: 450–465.
- [20] Jin G.Y., Ye T.G., Shi S.X. Three-Dimensional Vibration Analysis of Isotropic and Orthotropic Open Shells and Plates with Arbitrary Boundary Conditions. SHOCK AND VIBRATION,2015, 896204-1-29
- [21] Jin G.Y., Su Z., Shi S.X., Ye T.G., Gao S.Y. Three-dimensional exact solution for the free vibration of arbitrarily thick functionally graded rectangular plates with general boundary conditions. Compos Struct, 2014, 108: 565–577.
- [22] Jin G.Y., Xie X., Liu Z.G. The Haar wavelet method for free vibration analysis of functionally graded cylindrical shells based on the shear deformation theory. Compos Struct 2014, 108: 435-448.
- [23] Jin G.Y., Ye T.G., Ma X.L., Chen Y.H., Su Z, Xie X. A unified approach for the vibration analysis of moderately thick composite laminated cylindrical shells with arbitrary boundary conditions. Int J Mech Sci, 2013, 75: 357–376.
- [24] Jin G.Y., Shi S.X., Su Zhu, Li S.Z., Liu Z.G. A modified Fourier-Ritz approach for free

vibration analysis of laminated functionally graded shallow shells with general boundary conditions. International Journal of Mechanical Sciences, 2015, 93: 256-269.

- [25] Jin G.Y., Ma X.L., Shi S.X., Ye T.G., Liu Z.G. A modified Fourier series solution for vibration analysis of truncated conical shells with general boundary conditions. Appl Acoust, 2014, 85: 82-96.
- [26] Chen Y.H., Jin G.Y., Zhu M.G., Liu Z.G., D.T., Li Wen L. Vibration behaviors of a box-type structure built up by plates and energy transmission through the structure, Journal of Sound and Vibration, 2012, 331:849-867.
- [27] Chen Y.H., Jin G.Y., Shi S.X., Liu Z.G. A general analytical method for vibroacoustic analysis of an arbitrarily restrained rectangular plate backed by a cavity with general wall impedance. Journal of Vibration and Acoustics, 2014, 136: 031015-1-11.
- [28] Jin G.Y., Liu Z.G., Yang T.J. Active control of sound transmission into an acoustic cavity surrounded by more than one flexible plate. Noise Control Engineering Journal. 2009, 57(3):210-220.
- [29] Ye T.G., Jin G.Y., Su Z., Jia X.Z. A unified Chebyshev-Ritz formulation for vibration analysis of composite laminated deep open shells with arbitrary boundary conditions. Arch Appl Mech, 2014, 84(4): 441-474.
- [30] Jin G.Y., Su Z., Ye T.G., Jia X.Z. Three-dimensional vibration analysis of isotropic and orthotropic conical shells with elastic boundary restraints. Int J Mech Sci, 2014, 89: 207-221.
- [31] Jin G.Y., Ye T.G., Jia X.Z., Gao S.Y. A general Fourier solution for the vibration analysis of composite laminated structure elements of revolution with general elastic restraints. Compos Struct, 2014, 109: 150–168.
- [32] Chen Y.H., Jin G.Y., Liu Z.G. Flexural and in-plane vibration analysis of elastically restrained thin rectangular plate with cutout using Chebyshev–Lagrangian method. Int J Mech Sci, 2014, 89: 264-278.
- [33] Ma X.L., Jin G.Y., Xiong Y.P., Liu Z.G. Free and forced vibration analysis of coupled conical-cylindrical shells with arbitrary boundary conditions. Int J Mech Sci, 2014, 88: 122-137.
- [34] Su Z., Jin G.Y., Ye T.G. Three-dimensional vibration analysis of thick functionally graded conical, cylindrical shell and annular plate structures with arbitrary elastic restraints. Compos Struct, 2014, 118: 432–447.
- [35] Ye T.G., Jin G.Y., Shi S.X., Ma X.L. Three-dimensional free vibration analysis of thick cylindrical shells with general end conditions and resting on elastic foundations. Int J Mech Sci, 2014, 84: 120-137.
- [36] Su Z., Jin G.Y., Shi S.X., Ye T.G., Jia X.Z. A unified solution for vibration analysis of functionally graded cylindrical, conical shells and annular plates with general boundary conditions. Int J Mech Sci, 2014, 80: 62-80.
- [37] Ma X.L., Jin G.Y., Liu Z.G. Active structural acoustic control of an elastic cylindrical shell coupled to a two-stage vibration isolation system. Int J Mech Sci, 2014, 79: 182-194.
- [38] Shi S.X., Jin G.Y., Liu Z.G. Vibro-acoustic behaviors of an elastically restrained double-panel structure with an acoustic cavity of arbitrary boundary impedance. Appl Acoust, 2014, 76: 431-444.
- [39] Xuan L.K., Jin G.Y., Gong J.F., et al. Time domain finite volume method for three-dimensional structural-acoustic coupling analysis. Appl Acoust, 2014, 76: 138-149.