

14. Yasuda, K. Review of Research in Japan on Nonlinear Oscillations of Elastic Structures. JSME international journal. Ser. C, Dynamics, control, robotics, design and manufacturing. 1996. Vol. 39. No. 3. Pp. 439–449. doi: 10.1299/jsmec1993.39.439.
15. Amabili, M., Paidoussis, M.P. Review of studies on geometrically nonlinear vibrations and dynamics of circular cylindrical shells and panels, with and without fluid-structure interaction. Applied Mechanics Reviews. 2003. Vol. 56. No. 4. Pp. 349. doi: 10.1115/1.1565084.
16. Abrosimov, N.A., Bazhenov, V.G. Nelineinye zadachi dinamiki kompozitnykh konstruksii. [Nonlinear problems of composite structural dynamics]. Nizhni Novgorod: Izd. NNGU, 2002. 400 p. (rus)
17. Mouhat, O., Khamlichi, A. Effect of loading pulse duration on dynamic buckling of stiffened panels. MATEC Web of Conferences, ed. Belhaq M. 2014. Vol. 16. P. 07006. doi: 10.1051/mateconf/20141607006.
18. Thang, P.-T., Nguyen-Thoi, T. A new approach for nonlinear dynamic buckling of S-FGM toroidal shell segments with axial and circumferential stiffeners. Aerospace Science and Technology. 2016. Vol. 53. Pp. 1–9. doi: 10.1016/j.ast.2016.03.008.
19. Sofiyev, A.H., Kuruoglu, N. Domains of dynamic instability of FGM conical shells under time dependent periodic loads. Composite Structures. 2016. Vol. 136. Pp. 139–148. doi: 10.1016/j.compstruct.2015.09.060.
20. Krysko, V.A., Awrejcewicz, J., Saveleva, N.E. Stability, bifurcation and chaos of closed flexible cylindrical shells. International Journal of Mechanical Sciences. 2008. Vol. 50. No. 2. Pp. 247–274. doi: 10.1016/j.ijmecsci.2007.07.006.
21. Huang, H., Han, Q. Nonlinear dynamic buckling of functionally graded cylindrical shells subjected to time-dependent axial load. Composite Structures. 2010. Vol. 92. No. 2. Pp. 593–598. doi: 10.1016/j.compstruct.2009.09.011.
22. Bich, D.H., Dung, D.V., Nam, V.H. Nonlinear dynamic analysis of eccentrically stiffened imperfect functionally graded doubly curved thin shallow shells. Composite Structures. 2013. Vol. 96. Pp. 384–395. doi: 10.1016/j.compstruct.2012.10.009.
23. Chamis, C.C. Dynamic Buckling and Postbuckling of a Composite Shell. International Journal of Structural Stability and Dynamics. 2010. Vol. 10. No. 04. Pp. 791–805. doi: 10.1142/S0219455410003749.
24. Sirivolu, D., Hoo Fatt, M.S. Dynamic stability of double-curvature composite shells under external blast. International Journal of Non-Linear Mechanics. 2015. Vol. 77. Pp. 281–290. doi: 10.1016/j.ijnonlinmec.2015.09.005.
25. Luo, K., Liu, C., Tian, Q., Hu, H. Nonlinear static and dynamic analysis of hyper-elastic thin shells via the absolute nodal coordinate formulation. Nonlinear Dynamics. 2016. Vol. 85. No. 2. Pp. 949–971. doi: 10.1007/s11071-016-2735-z.
26. Xin, J., Wang, J., Yao, J., Han, Q. Vibration, buckling and dynamic stability of a cracked cylindrical shell with time-varying rotating speed. Mechanics Based Design of Structures and Machines. 2011. Vol. 39. No. 4. Pp. 461–490. doi: 10.1080/15397734.2011.569301.
27. Naboulsi, S.K., Palazotto, A.N., Greer, J.M. Static-dynamic analyses of toroidal shells. Journal of Aerospace Engineering. 2000. Vol. 13. No. 3. Pp. 110–121. doi: 10.1061/(ASCE)0893-1321(2000)13:3(110).
28. Li, Y.-Q., Tamura, Y. Wind-resistant analysis for large-span single-layer reticulated shells. International Journal of Space Structures. 2004. Vol. 19. No. 1. Pp. 47–59. doi: 10.1260/026635104322988362.
29. Karpov, V.V., Semenov, A.A. Mathematical model of deformation of orthotropic reinforced shells of revolution. cylindrical shells and panels, with and without fluid-structure interaction // Applied Mechanics Reviews. 2003. Vol. 56. № 4. Pp. 349. doi: 10.1115/1.1565084.
30. Абросимов Н.А., Баженов В.Г. Нелинейные задачи динамики композитных конструкций. Н. Новгород: Изд-во ННГУ, 2002. 400 с.
31. Mouhat O., Khamlichi A. Effect of loading pulse duration on dynamic buckling of stiffened panels // MATEC Web of Conferences / ed. Belhaq M. 2014. Vol. 16. P. 07006. doi: 10.1051/mateconf/20141607006.
32. Thang P.-T., Nguyen-Thoi T. A new approach for nonlinear dynamic buckling of S-FGM toroidal shell segments with axial and circumferential stiffeners // Aerospace Science and Technology. 2016. Vol. 53. Pp. 1–9. doi: 10.1016/j.ast.2016.03.008.
33. Sofiyev A.H., Kuruoglu N. Domains of dynamic instability of FGM conical shells under time dependent periodic loads // Composite Structures. 2016. Vol. 136. Pp. 139–148. doi: 10.1016/j.compstruct.2015.09.060.
34. Krysko V.A., Awrejcewicz J., Saveleva N.E. Stability, bifurcation and chaos of closed flexible cylindrical shells // International Journal of Mechanical Sciences. 2008. Vol. 50. № 2. Pp. 247–274. doi: 10.1016/j.ijmecsci.2007.07.006.
35. Huang H., Han Q. Nonlinear dynamic buckling of functionally graded cylindrical shells subjected to time-dependent axial load // Composite Structures. 2010. Vol. 92. № 2. Pp. 593–598. doi: 10.1016/j.compstruct.2009.09.011.
36. Bich D.H., Dung D.V., Nam V.H. Nonlinear dynamic analysis of eccentrically stiffened imperfect functionally graded doubly curved thin shallow shells // Composite Structures. 2013. Vol. 96. Pp. 384–395. doi: 10.1016/j.compstruct.2012.10.009.
37. Chamis C.C. Dynamic Buckling and Postbuckling of a Composite Shell // International Journal of Structural Stability and Dynamics. 2010. Vol. 10. № 04. Pp. 791–805. doi: 10.1142/S0219455410003749.
38. Sirivolu D., Hoo Fatt M.S. Dynamic stability of double-curvature composite shells under external blast // International Journal of Non-Linear Mechanics. 2015. Vol. 77. Pp. 281–290. doi: 10.1016/j.ijnonlinmec.2015.09.005.
39. Luo K., Liu C., Tian Q., Hu H. Nonlinear static and dynamic analysis of hyper-elastic thin shells via the absolute nodal coordinate formulation // Nonlinear Dynamics. 2016. Vol. 85. № 2. Pp. 949–971. doi: 10.1007/s11071-016-2735-z.
40. Xin J., Wang J., Yao J., Han Q. Vibration, Buckling and Dynamic Stability of a Cracked Cylindrical Shell with Time-Varying Rotating Speed // Mechanics Based Design of Structures and Machines. 2011. Vol. 39. № 4. Pp. 461–490. doi: 10.1080/15397734.2011.569301.
41. Naboulsi S.K., Palazotto A.N., Greer J.M. Static-Dynamic Analyses of Toroidal Shells // Journal of Aerospace Engineering. 2000. Vol. 13. № 3. Pp. 110–121. doi: 10.1061/(ASCE)0893-1321(2000)13:3(110).
42. Li Y.-Q., Tamura Y. Wind-Resistant Analysis for Large-span Single-layer Reticulated Shells // International Journal of Space Structures. 2004. Vol. 19. № 1. Pp. 47–59. doi: 10.1260/026635104322988362.
43. Карпов В.В., Семенов А.А. Математическая модель деформирования подкрепленных ортотропных оболочек вращения // Инженерно-строительный журнал. 2013. №5(40). С. 100–106. doi: 10.5862/MCE.40.11.
44. Wang B., Tian K., Hao P., Zheng Y., Ma Y., Wang J. Numerical-based smeared stiffener method for global buckling analysis of grid-stiffened composite cylindrical shells // Composite Structures. 2016. Vol. 152. Pp. 807–815. doi: 10.1016/j.compstruct.2016.05.096.

- Magazine of Civil Engineering. 2013. Vol. 40. No. 5. Pp. 100–106. doi: 10.5862/MCE.40.11.
30. Wang, B., Tian, K., Hao, P., Zheng, Y., Ma, Y., Wang, J. Numerical-based smeared stiffener method for global buckling analysis of grid-stiffened composite cylindrical shells. *Composite Structures*. 2016. Vol. 152. Pp. 807–815. doi: 10.1016/j.compstruct.2016.05.096.
 31. Karpov, V.V., Ignat'ev, O.V., Semenov, A.A. The stress-strain state of ribbed shell structures. *Magazine of Civil Engineering*. 2017. No. 6. Pp. 147–160. doi: 10.18720/MCE.74.12
 32. Karpov, V.V. Prochnost' i ustoichivost' podkreplennykh obolochek vrashcheniya: v 2 ch. Ch.1: Modeli i algoritmy issledovaniya prochnosti i ustoichivosti podkreplennykh obolochek vrashcheniya. [Strength and Stability of Reinforced Shells of Revolution, Vol. 1: Mathematical Models and Algorithms of Studying the Strength and Stability of Reinforced Shells of Revolution]. Moscow: Fizmatlit, 2010. 288 p. (rus)
 33. Karpov, V.V., Semenov, A.A. Mathematical models and algorithms for studying strength and stability of shell structures. *Journal of Applied and Industrial Mathematics*. 2017. Vol. 11. Pp. 70–81. doi: 10.1134/S1990478917010082
 34. Shampine, L.F., Corless, R.M. Initial value problems for ODEs in problem solving environments // *Journal of Computational and Applied Mathematics*. 2000. Vol. 125. No. 1–2. Pp. 31–40. doi: 10.1016/S0377-0427(00)00456-8.
 35. Ungbhakorn, V., Singhatanadgid, P. A scaling law for vibration response of laminated doubly curved shallow shells by energy approach. *Mechanics of Advanced Materials and Structures*. 2009. Vol. 16. No. 5. Pp. 333–344. doi: 10.1080/15376490902970430.
 36. Redkin, A.V., Tarasov, V.A., Baranovskiy, M.Yu., Teplov, A.B., Method for constructing models of complex shell structures. *Construction of Unique Buildings and Structures*. 2016. No. 1(40). Pp. 61–77. (rus)
 37. Chepurnenko, A.S. Calculation of three-layer shallow shells taking into account nonlinear creep. *Magazine of Civil Engineering*. 2017. No. 8. Pp. 156–168. doi: 10.18720/MCE.76.14.
 31. Карпов В.В., Игнатьев О.В., Семенов А.А. Напряженно-деформированное состояние ребристых оболочечных конструкций // *Инженерно-строительный журнал*. 2017. № 6(74). С. 147–160. doi: 10.18720/MCE.74.12.
 32. Карпов В.В. Прочность и устойчивость подкрепленных оболочек вращения: в 2 ч. Ч.1: Модели и алгоритмы исследования прочности и устойчивости подкрепленных оболочек вращения. М.: Физматлит, 2010. 288 с.
 33. Karpov V.V., Semenov A.A. Mathematical models and algorithms for studying strength and stability of shell structures // *Journal of Applied and Industrial Mathematics*. 2017. Vol. 11. Pp. 70–81. doi: 10.1134/S1990478917010082
 34. Shampine L.F., Corless R.M. Initial value problems for ODEs in problem solving environments // *Journal of Computational and Applied Mathematics*. 2000. Vol. 125. № 1–2. Pp. 31–40. doi: 10.1016/S0377-0427(00)00456-8.
 35. Ungbhakorn V., Singhatanadgid P. A Scaling Law for Vibration Response of Laminated Doubly Curved Shallow Shells by Energy Approach // *Mechanics of Advanced Materials and Structures*. 2009. Vol. 16. № 5. Pp. 333–344. doi: 10.1080/15376490902970430.
 36. Редькин А.В., Тарасов В.А., Барановский М.Ю., Теплов А.Б. Методика построения моделей сложных оболочковых конструкций // *Строительство уникальных зданий и сооружений*. 2016. № 1(40). С. 61–77.
 37. Чепурненко А.С. Расчет трехслойных пологих оболочек с учетом нелинейной ползучести // *Инженерно-строительный журнал*. 2017. № 8(76). С. 156–168. doi: 10.18720/MCE.76.14.

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