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<http://www.scopus.com/authid/detail.uri?authorId=55905190100>

### Monograph chapters

- [1] Krasovsky V.L., Lykhachova O.V. Deformation and buckling of axially compressed cylindrical shells with transversal cut in numerical and physical experiments. In Z.Kolakowski, R.J.Mania (eds.), *Statics, Dynamics and Stability of Structures: Selected problems of continuum mechanics. A series of Monographs*, 5, 7, 174–193, Lodz, Lodz University of Technology, 2016.

### Publications in international scientific journals

- [2] Evkin, A., Kolesnikov M., Lykhachova, O. [Buckling load prediction of externally pressurized thin spherical shell with localized imperfections](#). *Accepted in Mathematics and Mechanics of Solids*. IF 2.953.
- [3] Evkin A.Yu., Lykhachova O.V. [Energy barrier as a criterion for stability estimation of spherical shell under uniform external pressure](#), *International Journal of Solids and Structures*, 118–119, 14–23, 2017. IF 2.760.

### Publications in local and national peer-reviewed scientific journals

- [4] Lykhachova O.V., Kolakowski Z. [Influence of the transverse inhomogeneity on the nonlinear postbuckling path of compressed FG cylindrical panels](#), *Engineering Transactions*, 563-577, 65, 4, 2017.
- [5] Lykhachova O.V. [Numerical simulation of axially compressed cylindrical shells with circular cut-outs](#). *Mechanics and Mechanical Engineering*, 20, 2, 311–320, 2016.
- [6] Lykhachova O.V., Kolakowski Z. [Comparison of numerical results with known solutions of buckling problem of pressured shallow spherical shells](#). *Mechanics and Mechanical Engineering*, 20, 2, 185–190, 2016.
- [7] Lykhachova O.V. Influence of force loading conditions on buckling of axially compressed elastic cylindrical shell with one transversal cut. *Visnyk of Zaporizhzhya National University. Physical and mathematical Sciences. Mathematical modelling and applied mechanics*, 3, 168–174, Zaporizhzhya, ZNU, 2015. (In Russian)
- [8] Lykhachova O., Burlaka O., Krasovsky V. Buckling problem of shallow spherical shells: comparison of numerical results with known solutions. *Theoretical Foundations of Civil Engineering*, 23, 117–120, 2015.
- [9] Lykhachova O. [On the bearing capacity of axially compressed cylindrical shells with a transversal cut](#). *Bulletin of Prydniprov's'ka State Academy of Civil Engineering and Architecture*, 7–8, 87–95, Dnipropetrovsk, PSACEA, 2012. (In Russian)
- [10] Varianichko M.A., Karasev A.G., Lykhachova O.V., Krasovsky V.L. [Effect of initial imperfections geometry on the critical pressure of closed elastic shallow unreinforced conical shells](#). *Bulletin of Prydniprov's'ka State Academy of Civil Engineering and Architecture*, 6, 20–31, Dnipropetrovsk, PSACEA, 2010. (In Russian)
- [11] Lykhachova O., Krasovsky V. Numerical simulation of buckling tests of axially compressed cylindrical shells with one circular cutout (R.Tennyson's experiments). *Theoretical Foundations of Civil Engineering*, 22, 133–136, 2014.
- [12] Lykhachova O., Prokopalo Ye. Experimental and numerical investigation of buckling of axially compressed elastic cylindrical shells with one transversal cut. *Theoretical Foundations of Civil Engineering*, 21, 267–274, Warsaw, WP, 2013. (In Russian)
- [13] Lykhachova O. On the buckling numerical analysis of cylindrical shells with longitudinal cuts under kinematic axial compression. *Theoretical Foundations of Civil Engineering*, 20, 233–238, 2012. (In Russian)

- [14] Lykhachova O. Stability of axially compressed cylindrical shells with longitudinal cuts. *Theoretical Foundations of Civil Engineering*, 19, 155–160, 2011. (In Russian)
- [15] Karasev A.G., Lykhachova O.V., Kolesnikov M.V., Schmidt R., Krasovsky V.L. Particularities of the “static resonance” effect in the flat closed conical shells under external pressure. *Theoretical Foundations of Civil Engineering*, 18, 157-164, 2010. (In Russian)
- [16] Varianichko M., Zayarnaya E., Lykhachova O. Influence of loading direction on the critical pressure of axisymmetric flat-sloped thin-walled structures. *Theoretical Foundations of Civil Engineering*, 16, 373–376, 2008. (In Russian)

#### **Publications in peer-reviewed conference proceedings**

- [17] Krasovsky V, Lykhachova O, Bessmertnyi Y. Deformation and stability of thin-walled shallow shells in the case of periodically non-uniform stress-strain state, [\*Shell Structures: Theory and Applications – Proc. of the 11th SSTA 2017 Conference\*, 4](#), 251–254, and Francis – Balkema, London, 2018.
- [18] Lykhachova O.V., Schmidt R. Deformation and buckling of axially compressed elastic cylindrical shells with transversal cut in experiments and numerical simulations. [\*Shell Structures: Theory and Applications – Proc. of the 10th SSTA 2013 Conference\*, 3](#), 219–222, Taylor and Francis - Balkema, London, 2014.
- [19] Lykhachova O.V., Volchok D.L., Schmidt R. About the influence of the cut length on deformation and stability of the elastic circular cylindrical shells. [\*Stability of Structures – Proc. of the XIII Sympozjum Stateczności Konstrukcji\*](#), 435–440, Zakopane, 2012.

#### **Publications in conference materials**

- [20] Lykhachova O.V., Evkin A.Yu. Design buckling pressure for elastic shallow clamped spherical shells. *Accepted in Stability of Structures – Proc. of the XV Sympozjum Stateczności Konstrukcji*, Zakopane, 2018.
- [21] Lykhachova O.V., Kolakowski Z. Influence of the coupling submatrix B on the nonlinear stability of FG cylindrical panels subjected to compression. *TKI 2016 – Proc. of the XIV Konferencja Naukowo-Techniczna Techniki Komputerowe w Inżynierii*, Warszawa, 2016.
- [22] Lykhachova O.V. On numerical buckling solutions of cylindrical shells with a transversal cut under different schemes of axial compression. Proc. of the XVIII International Youth Scientific and Practical Conference *Human and Space*, 180, Dnipropetrovsk, 2016. (in Russian)
- [23] Krasovsky V.L., Lykhachova O.V. Cylindrical shells with one longitudinal cut under different conditions of axial compression. *PCM-CMM-2015 – Proc. of the 3<sup>rd</sup> Polish congress of mechanics and 21<sup>st</sup> International conference on computer methods in mechanics*, 2, 915–916, Gdansk, 2015.
- [24] Krasovsky V.L., Lykhachova O.V. Numerical buckling solutions of cylindrical shells with one transversal cut under different conditions of axial compression. *Stability of Structures – Proc. of the XIV Sympozjum Stateczności Konstrukcji*, 61-62, Zakopane, 2015.
- [25] Martchenko V., Kruglenko O.S., O.V. Lykhachova. Instabilité des coques cylindriques aux impacts locaux externes: influence des conditions de rive. *Innovative approaches of actual problems in the field of building, architecture and economy: international context - Book of abstracts*, 2, 153–155, Dnipropetrovsk, PSACEA, 2012.
- [26] Lykhachova O.V. Numerical investigation of stability of cylindrical shells with longitudinal cuts under axial compression. Proc. of the conference *Information technologies in education, science and management*, 165-169, Dnipropetrovsk, PSACEA, 2012. (In Russian)
- [27] Loskutov A.E., Lykhachova O.V., Sabsay A.V. On the value of axial compression for femur osteosynthesis. Proc. of International conference *Modern problems of mathematics and its applications in natural sciences and information technology*, 71–72, Kharkiv, V.N.Karazin Kharkiv National University, 2011. (In Russian)

- [28] Lykhachova O.V. Comparaison des calculs lineaires des coques coniques a pente faible au moyen de LS LIRA et LS ANSYS. *Science and Technology: Perspectives in the XXI century – Book of abstracts*, 37–38, Dnipropetrovsk, PSACEA, 2010.
- [29] Lykhachova O.V., Karasev A.G. Comparison of bifurcation analyses of flat conical shells using Lira and Ansys software. *Integrated computer technology in mechanical engineering - Proc. of IX Scientific and technical conference ICTME-2009 of young scientists*, 1, 120, Kharkiv, National Aerospace University “Kharkiv Aviation Institute”, 2009. (*In Russian*).

### **Workbooks and teaching guides**

- [30] Lykhachova O.V. Stabilité des coques coniques peu profondes renforcées au moyen du logiciel LIRA : Manuel pour le travail pratique sur la discipline “Mécanique des structures” pour les étudiants de la direction de preparation 6.060101 «Bâtiment» du Projet francophone. – Dnipropetrovsk: PSACEA. – 2016. – 17 p.
- [31] Варяничко М.О., Лихачова О.В., Фролов М.О. Методичні вказівки до виконання самостійних робіт «Розрахунок тонких плит методом скінченних елементів з використанням програмного комплексу ЛІРА» з дисципліни «Будівельна механіка» для студентів напряму підготовки 6.060101 «Будівництво» денної форми навчання. – Дніпропетровськ: ПДАБА. – 2015. – 25 с.
- [32] Лихачева О.В., Панченко С.П. Методика численного исследования устойчивости пологих подкрепленных конических оболочек на основе ПК ЛИРА 9.2: Методические указания. – Днепропетровск: ПГАСА. – 2010. – 14 с.