Professor L. P. Khoroshun

A.N. Guz, L.P. Khoroshun, M.I. Mikhailova, D.V. Babich, et al, Mechanics of Composites in 12 Volumes, "A.C.K.", Kiev, 2004

See:
http://www.inmech.kiev.ua/eng/leading_scientists.htm

Head of the Department of Mechanics of Stochastically Inhomogenous Media
S. P. Timoshenko Institute of Mechanics of the National Academy of Sciences of Ukraine

- Personal Data
  - Born in Ukraine, April 25, 1937;
  - Nationality: Ukrainian;
  - Citizenship: Ukraine;
- Academic Degrees
  - 1954-1959, Kiev University, Mechanics
  - 1963;Candidate of Sciences (PhD),Institute of Mechanics
  - 1970, Doctor of Sciences (the second doctorate degree),Kiev University
  - 1979, Professor, Institute of Mechanics
- Employment
  - 1959-1973, Engineer, Postgraduate Student, Senior Scientist, Institute of Mechanics
  - 1973-present,Head of Department of Mechanics of Stochastically Inhomogeneous Media, Institute of Mechanics
- Publications
  - 11 monographs
  - more than 370 scientific papers
- Advanced teaching activities
  - Supervisor of 6 Doctor of Sciences theses (the second doctorate degree)
  - Supervisor of 23 Candidate of Scienses (PhD) theses
- Memberships (Academies)
  - 2000, Corresponding Member of the National Academy of Sciences of Ukraine

- 1993, Member of National Committee of Ukraine of Theoretical and Applied Mechanics
- 1992, Member of the Editorial Boards of Scientific Journal: International Applied Mechanics

- Awards, prizes
  - 1988, State Prize of Ukraine
  - 2007, Name Prize of the National Academy of Sciences of Ukraine
- Research Interests, Main Scientific Results
  1. Mechanics of stochastically inhomogeneous media (composite materials, porous media saturated by fluid, dispersion-liquid media).
  2. Fracture mechanics (linear and nonlinear mechanics of cracks, coupled processes of deformation and material damage).
  3. Layered plates and shells.
  4. Thermodynamic and statistical basics of elastoviscoplastic deformation and hardening of materials.
  5. Statistical mechanics of atomic-molecular systems that interact according to the Lennard-Jones law.
  6. Two-continuum mechanics as basis of dynamic theory of electromagnetomechanics for dielectric and piezoelectrics.

Selected Publications:

Books:

A.N. Guz, L.P. Khoroshun, M.I. Mikhailova, D.V. Babich, et al, Mechanics of Composites in 12 Volumes, "A.C.K.", Kiev, 2004

Journal Articles:

L. P. Khoroshun, "Constructing the equations of laminated plates and shells," Prikl. Mekh., 14, No. 10, 3–21 (1978).
L. P. Khoroshun and I. K. Koshevoi, "Stability of orthotropic shells with a structure inhomogeneous in thickness," Prikl. Mekh., 18, No. 5, 37–44 (1980).
L. P. Khoroshun and A. S. Strel'chenko, "On the behavior of a difference scheme in stability problems for rods and shells of revolution with variable parameters," Mat. Fiz., 8, 100–104 (1980).
L. P. Khoroshun, "On one technique of constructing the equations for the shear theory of thermoelasticity of laminated plates and shells," Prikl. Mekh., 16, No. 10, 21–30 (1980).
L. P. Khoroshun and A. S. Strel'chenko, "On some features of applying discrete schemes in stability problems for rods and shells," Prikl. Mekh., 17, No. 3, 74–80 (1981).
L. P. Khoroshun, "On refined stability equations for plates and shells," Prikl. Mekh., 17, No. 7, 67–74 (1981).
A. N. Guz', L. P. Khoroshun, G. A. Vanin, et al., Mechanics of Materials [in Russian], Nauk. Dumka, Kiev (1982).
D. V. Babich and L. P. Khoroshun, "Stability of shells of revolution," in: A. N. Guz, Ya. M. Grigorenko et al., The Mechanics of Structural Elements, Vol. 2 of the three-volume series The Mechanics of Composites and Structural Elements [in Russian], Naukova Dumka, Kiev (1983), pp. 319–334.
L. P. Khoroshun and S. G. Shpakova, "Stress—strain analysis of a thermosensitive cylindrical shell based on shear theory," Prikl. Mekh., 22, No. 2, 59–66 (1986).
L. P. Khoroshun and S. G. Shpakova, "The stress—strain state of thermosensitive composite cylindrical shells," Mekh. Komp. Mater., No. 4, 651–657 (1986).
L. P. Khoroshun and S. G. Shpakova, "Allowance for heat sensitivity in constructing the equations for the shear theory of thermoelasticity of laminated plates and shells," Prikl. Mekh., 22, No. 11, 78–85 (1986).

Khoroshun LP, Kozlov SY, Ivanov YA, Koshevoi IK (1988) The generalized theory of plates and shells non-homogeneous in thickness direction. Naukova Dumka, Kiev (in Russian)
L. P. Khoroshun and D. V. Babich, "Stability of shells made of thermosensitive composites," Prikl. Mekh., 28, No. 10. 52–57 (1992).
D. V. Babich, V. V. Vorobei, V. I. Tarasyuk, and L. P. Khoroshun, "Natural vibrations of shells of revolution made of thermosensitive composites," Prikl. Mekh., 28, No. 4, 8–16 (1992).
L. P. Khoroshun, B. P. Maslov, E. N. Shikula, and L. V. Nazarenko,Statistical Mechanics and Effective Properties of Materials [in Russian], Nauk. Dumka, Kiev (1993)
D. V. Babich and L. P. Khoroshun, "Stability and natural vibrations of shells with variable geometric and mechanical parameters," Int. Appl. Mech., 37, No. 7, 837–869 (2001)
Khoroshun, L. P., Babich, D. V. 2001 Stability problems for plates with short-term damageability Int. Appl. Mech. 37: 231-240
Babich, D.V., Khoroshun, L.P., 2001. Stability and natural vibrations of shells with variable geometric and mechanical parameters. International Applied Mechanics. 37 (7), 837–869.
Babich, D. V., Khoroshun, L. P. 2002 Stability of cylindrical shells with microdamages Int. Appl. Mech. 38: 1237-1244
Babich, D. V., Khoroshun, L. P. 2003 Dispersed damages in stability problems for doubly curved shells of revolution Int. Appl. Mech. 39: 70-76
L. P. Khoroshun and D. V. Babich, "Stability of Shells of Revolution Made of Granular Composite with Damageable Components," International Applied Mechanics, Vol. 40, No. 9, 2004, pp. 1028-1036
L.P. Khoroshun and D.V. Babich, "Stability of shells of revolution made of fibrous composite with damageable matrix", International Applied Mechanics, Vol. 41, No. 10, pp 1149-1155, 2005
L. P. Khoroshun and D. V. Babich, "Stability of Laminated Convex Shells of Revolution with Microdamages in Laminate Components," International Applied Mechanics, Vol. 42, No. 7, 2006, pp. 810-817
L. P. Khoroshun and D. V. Babich, "Stability of Cylindrical Shells Made of a Laminate Material with Damageable Components," International Applied Mechanics, Vol. 42, No. 6, 2006, pp. 677-683
L. P. Khoroshun, D. V. Babich and E. N. Shikula, "Stability of Cylindrical Shells Made of a Particulate Composite with Nonlinear Elastic Matrix and Damaged Inclusions," International Applied Mechanics, Vol. 43, No. 8, 2007, pp. 893-902.
L. P. Khoroshun, D. V. Babich and E. N. Shikula, "Stability of Cylindrical Shells Made of a Particulate Composite with Nonlinear Elastic Inclusions and Damageable Matrix," International Applied Mechanics, Vol. 43, No. 10, 2007, pp. 1123-1131
L. P. Khoroshun and D. V. Babich, "Stability of Plates and Shells Made of Homogeneous and Composite Materials Subject to Short-Term Microdamage," International Applied Mechanics, Vol. 44, No. 3, 2008, pp. 239-267
L. Khoroshun and D. Babich, "Stability of shells of revolution made of a particulate composite with components subject to long-term damage", International Applied Mechanics; Sep 2011, Vol. 46 Issue 9, p973