



Professor Liao Liang Ke

See:

<https://scholar.google.com.hk/citations?user=jPBcFSgAAAAJ&hl=en>

https://www.researchgate.net/profile/Liao-Liang_Ke

https://www.researchgate.net/scientific-contributions/2109754488_Liao-Liang_Ke

Institute of Engineering Mechanics, Beijing Jiaotong University, Beijing, China
and maybe
School of Engineering, RMIT University, Melbourne, Australia

Selected Publications:

Ke, L.-L., Yang, J. and Kitipornchai, S. (2009), "Postbuckling analysis of edge cracked functionally graded Timoshenko beams under end shortening", *Compos. Struct.*, 90(2), 152-160.

Ke, L. L., Xiang, Y., Yang, J., and Kitipornchai, S., 2009, "Nonlinear Free Vibration of Embedded Double-Walled Carbon Nanotubes Based on Nonlocal Timoshenko Beam Theory," *Comput. Mater. Sci.*, 47(2), pp. 409–417.

Ke, L.L., Yang, J., Kitipornchai, S. and Xiang, Y. (2009), "Flexural vibration and elastic buckling of a cracked Timoshenko beam made of functionally graded materials", *Mech. Adv. Mater. Struct.*, 16(6), 488-502.

Ke, L.-L., J. Yang, and S. Kitipornchai, Nonlinear free vibration of functionally graded carbon nanotube-reinforced composite beams. *Composite Structures*, 2010. 92(3): p. 676-683

Ke, L.L., Yang, J. and Kitipornchai, S. (2010), "An analytical study on the nonlinear vibration of functionally graded beams", *Meccanica*, 45(6), 743-752.

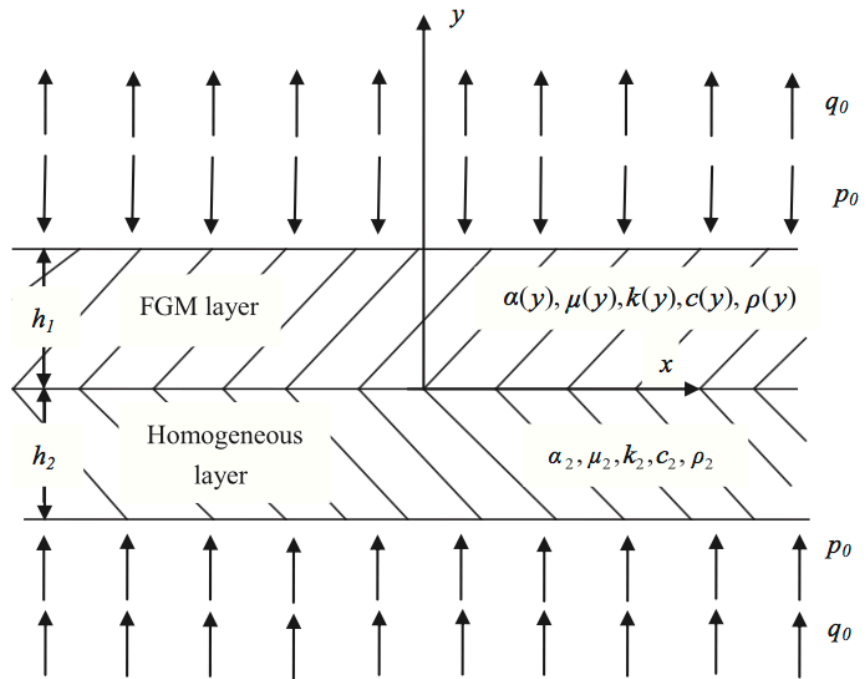


Fig. 1. An FGM layer on a homogeneous layer pressed by a uniform pressure and transmitting heat.

From: Jia-Jia Mao, Liao-Liang Ke and Yue-Sheng Wang, "Thermoelastic instability of a functionally graded layer interacting with a homogeneous layer", *International Journal of Mechanical Sciences*, Vol. 99, pp 218-227, August 2015

Yang, J., Ke, L.L., Kitipornchai, S., 2010, "Nonlinear free vibration of single-walled carbon nanotubes using nonlocal Timoshenko beam theory", *Physica E*, 42, pp. 1727-1735

Ke, L.L. and Wang, Y.S. (2011), "Size effect on dynamic stability of functionally graded microbeams based on a modified couple stress theory", *Compos. Struct.*, 93(2), 342-350

Ke, L.L., Wang, Y.S.: Flow-induced vibration and instability of embedded double-walled carbon nanotubes based on a modified couple stress theory. *Phys. E* 43, 1031–1039 (2011)

Ke, L.L., Wang, Y.S., Wang, Z.D.: Thermal effect on free vibration and buckling of size-dependent microbeams. *Phys. E* 43, 1387–1393 (2011)

Liao-Liang Ke, Yue-Sheng Wang, Jie Yang and Sritawat Kitipornchai, "Free vibration of size-dependent Mindlin microplates based on the modified couple stress theory", *Journal of Sound and Vibration*, Vol. 331, No. 1, pp 94-106, January 2012

Ke, L.L., Wang, Y.S., Yang, J. and Kitipornchai, S. (2012), "Nonlinear free vibration of size-dependent functionally graded microbeams", *Int. J. Eng. Sci.*, 50(1), 256-267.

Ke, L.L., Wang, Y.S.: Thermo-electric-mechanical vibration of the piezoelectric nanobeams based on the nonlocal theory. *Smart Mater. Struct.* 21, 025018 (2012)

Ke, L.L., Wang, Y.S., Wang, Z.D.: Nonlinear vibration of the piezoelectric nanobeams based on the nonlocal theory. *Compos. Struct.* 94, 2038–2047 (2012)

Ke, L., Wang, Y. and Yang, J. (2012), "Nonlinear vibration of edged cracked FGM beams using differential quadrature method", *Sci. China Phys. Mech. Astron.*, 55, 2114-2121.

Ke, L.L., Yang, J., Kitipornchai, S., Bradford, M.A.: Bending, buckling and vibration of size-dependent functionally graded annular microplates. *Compos. Struct.* 94(11), 3250–3257 (2012)

Ke, L.L., Yang, J. and Kitipornchai, S. (2013), "Dynamic stability of functionally graded carbon nanotube-reinforced composite beams", *Mech. Adv. Mater. Struct.*, 20(1), 28-37.

Liu, C., Ke, L.L., Wang, Y.S., et al.: Thermo-electromechanical vibration of piezoelectric nanoplates based on the nonlocal theory. *Compos. Struct.* 106, 167–174 (2013)

Ke, L.L., Yang, J., Kitipornchai, S., Bradford, M.A., Wang, Y.S.: Axisymmetric nonlinear free vibration of size-dependent functionally graded annular microplates. *Compos. Part B-Eng.* 53, 207–217 (2013)

L.-L. Ke, Y.-S. Wang, "Free vibration of size-dependent magneto-electro-elastic nanobeams based on the nonlocal theory", *Phys E*, 63 (2014), pp. 52-61

Ke, L.L., Yang, J., Kitipornchai, S., Wang, Y.S.: Axisymmetric postbuckling analysis of size-dependent functionally graded annular microplates using the physical neutral plane. *Int. J. Eng. Sci.* 81, 66–81 (2014)

Ke, L.L., Wang, Y.S., Yang, J., Kitipornchai, S.: Free vibration of size-dependent magneto-electro-elastic nanoplates based on the nonlocal theory. *Acta Mech. Sin. Xuebao.* 30, 516–525 (2014)

Ke, L.L., Wang, Y.S., Reddy, J.N.: Thermo-electro-mechanical vibration of size-dependent piezoelectric cylindrical nanoshells under various boundary conditions. *Compos. Struct.* 116, 626–636 (2014)

L.-L. Ke et al., The size-dependent vibration of embedded magneto-electro-elastic cylindrical nanoshells. *Smart Mater. Struct.* 23(12), 125036 (2014)

C. Liu, L.L. Ke, Y.S. Wang, J. Yang and S. Kitipornchai, "Buckling and post-buckling of size-dependent piezoelectric Timoshenko nanobeams subject to thermo-electro-mechanical loadings", *International Journal of Structural Stability and Dynamics*, Vol. 14, No. 3, 1350067, April 2014

Chen Liu, Liao-Liang Ke, Yue-Sheng Wang and Jie Yang, "Nonlinear vibration of nonlocal piezoelectric nanoplates", *International Journal of Structural Stability and Dynamics*, Vol. 15, No. 8, 1540013, December 2015

Yang, J., Ke, L.L., Feng, C.: Dynamic buckling of thermo-electro-mechanically loaded FG-CNTRC beams. *Int. J. Struct. Stab. Dyn.* 15, 1540017 (2015)

- Ke, L.L., Liu, C., Wang, Y.S.: Free vibration of nonlocal piezoelectric nanoplates under various boundary conditions. *Phys. E* 66, 93–106 (2015)
- Jia-Jia Mao, Liao-Liang Ke and Yue-Sheng Wang, “Thermoelastic instability of a functionally graded layer interacting with a homogeneous layer”, *International Journal of Mechanical Sciences*, Vol. 99, pp 218-227, August 2015
- C. Liu, L.L. Ke, J. Yang, S. Kitipornchai, and Y.S. Wang, Nonlinear vibration of piezoelectric nanoplates using nonlocal Mindlin plate theory, *Mech. Adv. Mater. Struct.*, 2016. (doi: 10.1080/15376494.2016.1149648)
- Wang, C.M., Ke, L.L., Roy Chowdhury, A.N., Yang, J., Kitipornchai, S. and Fernando, D. (2017), "Critical examination of midplane and neutral plane formulations for vibration analysis of FGM beams", *Eng. Struct.*, 130, 275-281.
- Jia-Jia Mao, Liao-Liang Ke, Jie Yang, Sritawat Kitipornchai and Yue-Sheng Wang, “Thermoelastic instability of functionally graded coating with arbitrarily varying properties considering contact resistance and frictional heat”, *Applied Mathematical Modelling*, Vol. 43, pp 521-537, 2017
- Jia-Jia Mao, Liao-Liang Ke, Jie Yang, Sritawat Kitipornchai & Yue-Sheng Wang (2018) Thermoelastic instability of functionally graded materials with interaction of frictional heat and contact resistance, *Mechanics Based Design of Structures and Machines*, 46:2, 139-156
- Jia-Jia Mao, Liao-Liang Ke, Jie Yang, Sritawat Kitipornchai, Yue-Sheng Wang, “The coupled thermoelastic instability of FGM coatings with arbitrarily varying properties: in-plane sliding”, *Acta Mechanica*, Vol. 229, No. 7, pp 2979-2995, July 2018
- L.H. Ma, L.L. Ke, J.N. Reddy, J. Yang, ... Y.S. Wang, “Wave propagation characteristics in magneto-electro-elastic nanoshells using nonlocal strain gradient theory”, *Composite Structures*, Vol. 199 pp 10-23, September 2018
- Chen Liu, Liao-Liang Ke, Jie Yang, Sritawat Kitipornchai and Yue-Sheng Wang, “Nonlinear vibration of piezoelectric nanoplates using nonlocal Mindlin plate theory”, *Mechanics of Advanced Materials and Structures*, Vol. 25, Nos. 15-16, pp 1252-1264, 2018