

Professor Lu-Wen Zhang

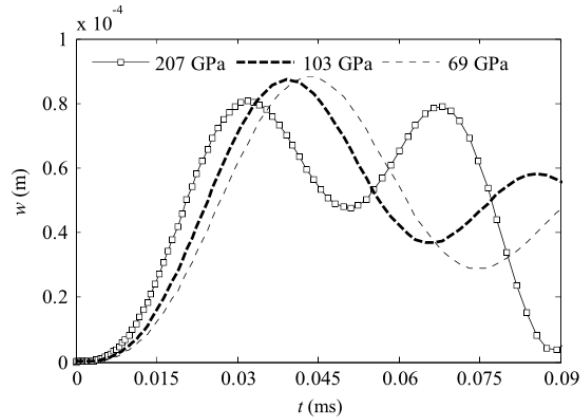


Fig. 9. Time histories of FG-X CNT-reinforced composite cylindrical shells under different impactor Young's modulus E_s .

From: L.W. Zhang, Z.G. Song, Pizhong Qiao and K.M. Liew, "Modeling of dynamic responses of CNT-reinforced composite cylindrical shells under impact loads", *Computer Methods in Applied Mechanics and Engineering*, Vol. 313, pp 889-903, January 2017

See:

<https://scholar.google.com/citations?user=s4nUocUAAAAJ&hl=en>

https://www.researchgate.net/profile/Lw_Zhang3/publications

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Biography:

Currently Dr. Zhang is the Distinguished Research Professor of mechanics in Shanghai Jiao Tong University. She received her PhD in 2010 from Shanghai University and continued her postdoctoral study in Shanghai University and City University of Hong Kong. Dr. Zhang's main research trust is focused on computational mechanics, multi-scale modeling, nanocomposite materials and optimization. Her research areas are on theoretical development and application of numerical algorithms and computational methods for problems in mechanics and nano materials. Dr. Zhang has published over 70 SCI journal articles and her publications have been cited over 1,200 (ISI). Her current h-index is 19 (ISI). She is Editor of *Journal of Modeling in Mechanics & Materials* (De Gruyter), Guest Editor on a Special Issue of *Mathematical Problems in Engineering Journal* (Hindawi Publishing) on *Computational Methods for Engineering Science* in 2014, and Editorial board member of *Polymer Science* (iMedPub).

Research Interests:

Computational mechanics, numerical modeling, nanocomposite and ocean engineering.

Selected Publications:

L.W. Zhang, Z.X. Lei, K.M. Liew, J.L. Yu, Static and dynamic of carbon nanotube reinforced functionally graded cylindrical panels, *Compos Struct*, 111 (2014), pp. 205–212

P. Zhu, L.W. Zhang, K.M. Liew, Geometrically nonlinear thermomechanical analysis of moderately thick functionally graded plates using a local Petrov–Galerkin approach with moving kriging interpolation, *Compos Struct*, 107 (2014), pp. 298–314

Z. Lei, L. Zhang, K. Liew, J. Yu, Dynamic stability analysis of carbon nanotube-reinforced functionally graded cylindrical panels using the element-free kp-Ritz method, *Compos Struct*, 113 (2014), pp. 328–338

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L.W. Zhang, Z.X. Lei, K.M. Liew, An element-free IMLS-Ritz framework for buckling analysis of FG-CNT reinforced composite thick plates resting on winkler foundations, *Eng Analysis Bound Elem*, 58 (2015), pp. 7–17

L.W. Zhang, W.C. Cui, K.M. Liew, Vibration analysis of functionally graded carbon nanotube reinforced composite thick plates with elastically restrained edges, *Int J Mech Sci*, 103 (2015), pp. 9–21

L.W. Zhang, Z.X. Lei, K.M. Liew, Buckling analysis of FG-CNT reinforced composite thick skew plates using an element-free approach, *Compos Part B Eng*, 75 (2015), pp. 36–46

K.M. Liew, Z.X. Lei, L.W. Zhang, Mechanical analysis of functionally graded carbon nanotube reinforced composites: a review, *Compos. Struct.*, 120 (2015), pp. 90–97

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Z.X. Lei, L.W. Zhang, K.M. Liew, Elastodynamic analysis of carbon nanotube reinforced functionally graded plates, *Int J Mech Sci*, 99 (2015), pp. 208–217

L.W. Zhang, K.M. Liew, Geometrically nonlinear large deformation analysis of functionally graded carbon nanotube reinforced composite straight-sided quadrilateral plates, *Comput Methods Appl Mech Eng*, 295 (2015), pp. 219–239

Z.X. Lei, L.W. Zhang, K.M. Liew, Free vibration analysis of laminated FG-CNT reinforced composite rectangular plates using the kp-Ritz method, *Compos Struct*, 127 (2015), pp. 245–259

L.W. Zhang, Z.X. Lei, K.M. Liew, Computation of vibration solution for functionally graded carbon nanotube-reinforced composite thick plates resting on elastic foundations using the element-free IMLS-Ritz method, *Appl Math Comput*, 256 (2015), pp. 488–504

Z.X. Lei, L.W. Zhang, K.M. Liew, Buckling of FG-CNT reinforced composite thick skew plates resting on pasternak foundations based on an element-free approach, *Appl Math Comput*, 266 (2015), pp. 773–791

L.W. Zhang, Z.G. Song, K.M. Liew, State-space Levy method for vibration analysis of FG-CNT composite plates subjected to in-plane loads based on higher-order shear deformation theory, *Compos Struct*, 134 (2015), pp. 989–1003

L.W. Zhang, K.M. Liew, J.N. Reddy, Postbuckling of carbon nanotube reinforced functionally graded plates with edges elastically restrained against translation and rotation under axial compression, *Comput Methods Appl Mech Eng*, 298 (2016), pp. 1–28

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Z.G. Song, L.W. Zhang, K.M. Liew, Aeroelastic analysis of CNT reinforced functionally graded composite panels in supersonic airflow using a higher-order shear deformation theory, *Compos. Struct.*, 141 (2016), pp. 79–90

L.W. Zhang, K.M. Liew, Element-free geometrically nonlinear analysis of quadrilateral functionally graded material plates with internal column support, *Compos Struct*, 147 (2016), pp. 99–110

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L.W. Zhang, K.M. Liew, J.N. Reddy, Geometrically nonlinear analysis of arbitrary straight-sides quadrilateral FGM plates, *Compos Struct*, 154 (2016), pp. 443–452

L.W. Zhang, K.M. Liew, J.N. Reddy, Postbuckling behavior of bi-axially compressed arbitrarily straight-sided quadrilateral functionally graded material plates, *Comput Methods Appl Mech Eng*, 300 (2016), pp. 593–610

L.W. Zhang and B.A. Selim, “Vibration analysis of CNT-reinforced thick laminated composite plates based on Reddy’s higher-order shear deformation theory”, *Composite Structures*, Vol. 160, pp 689-705, January 2017

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L.W. Zhang, M. Memar Ardestani and K.M. Liew, “Isogeometric approach for buckling analysis of CNT-reinforced composite skew plates under optimal CNT-orientation”, *Composite Structures*, Vol. 163, pp 365-384, March 2017

M. Memar Ardestani, L.W. Zhang and K.M. Liew, “Isogeometric analysis of the effect of CNT orientation on the static and vibration behaviors of CNT-reinforced skew composite plates”, *Computer Methods in Applied Mechanics*, Vol. 317, pp 341-379, April 2017

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L.W. Zhang and L.N. Xiao, “Mechanical behavior of laminated CNT-reinforced composite skew plates subjected to dynamic loading”, *Composites Part B: Engineering*, Vol. 122, pp 219-230, August 2017