



Dr. Ying-Yan Zhang

See:
http://www.uws.edu.au/scem/school_of_computing_engineering_and_mathematics/our_people/academic_staff_directory/doctor_yingyan_zhang
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School of Computing, Engineering and Mathematics
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Biography:

Dr Yingyan Zhang obtained her Bachelor degree from Dalian University of Technology, China and Master and Ph.D degrees from National University of Singapore. Later, she worked as postdoc research fellow in Engineering Science Programme, National University of Singapore. Before joining University of Western Sydney, she joined School of Mechanical Engineering and Automation in Fuzhou University as an overseas talent.

Areas of Research / Teaching Expertise:

Zhang's research interests include numerical methods in solid mechanics such as differential quadrature methods; atomistic investigation and continuum modelling of nanomaterials such as carbon nanotubes and graphene. She has worked as a reviewer for many nanotechnology journals including Nanotechnology, Carbon and Journal of Applied Physics etc.

Selected Publications:

(1 book, 1 chapter, 26 refereed journal papers (77% ERA A* or A), 302 citations, Hi-index=10 (on 12 March 2011))

Y. Y. Zhang, C. M. Wang and Y. Xiang (2010) "A molecular dynamics investigation of the torsional responses of defective single-walled carbon nanotubes," *Carbon*, 48, 4100-4108.

C. M. Wang, Y. Y. Zhang, Y. Xiang and J. N. Reddy (2010) "Recent studies on buckling of carbon nanotubes," *Applied Mechanics Reviews*, 63, 030804-1-18.

Y. Y. Zhang, C. M. Wang and N. Challamel (2010) "Bending, buckling and vibration of hybrid nonlocal beam models," *Journal of Engineering Mechanics-ASCE*, 136(5), 562-574.

Y. Y. Zhang, C. M. Wang and V. B. C. Tan (2009) "Buckling of carbon nanotubes at high temperature," *Nanotechnology*, 20, 215702.

Y. Y. Zhang, C. M. Wang, W. H. Duan, Y. Xiang and Z. Zong (2009) "Assessment of continuum mechanics models in predicting buckling strains of single-walled carbon nanotubes," *Nanotechnology*, 20, 395707.

Y. Y. Zhang, Y. Xiang and C. M. Wang (2009) "Buckling of defective carbon nanotubes," *Journal of Applied Physics*, 106, 113503.

Y. Y. Zhang, V. B. C. Tan and C. M. Wang (2007) "Effect of strain rate on the buckling behavior of single- and double-walled carbon nanotubes," *Carbon*, 45(3), 514-523.

Z. Zong and Y. Y. Zhang (2009) *Advanced Differential Quadrature Methods*, Chapman & Hall/CRC, USA, ISBN: 9781420082487