



Professor Kam Yim Sze (K.Y. Sze)

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<http://hub.hku.hk/cris/rp/rp00171>

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Biography:

Professor K.Y. Sze graduated from the Department of Mechanical Engineering, the University of Hong Kong with First Class Honors and as the Williamson Prizeman of the year. He continued his studies in the same Department and earned his PhD three years later. Before returning to his alma mater, he had taken up faculty positions at Nanyang Technological University, Singapore and City University, Hong Kong. Professor Sze is the recipient of the 1998 T.H.H. Pian Medal for his contribution to high performance finite elements and the 1999-2000 Outstanding Young Researcher Award of the University of Hong Kong. He serves in the editorial boards of Finite Elements in Analysis & Design, International Journal of Mechanics and Materials in Design and a few other journals. Professor Sze a Registered Professional Engineer, Hong Kong and a Chartered Engineer, United Kingdom.

Selected Publications:

- K.Y. Sze and C.L. Chow (1991). "An incompatible element for axisymmetric structure and its modification by hybrid method", *Int. J. Numer. Methods Eng.*, 31, 385–405.
- K. Sze, A. Ghali, Hybrid hexahedral element for solids, plates, shells and beams by selective scaling, *Int. J. Numer. Methods Eng.*, 36 (9) (1993), pp. 1519–1540
- Sze KY, Sim YS, Soh AK. A hybrid stress quadrilateral shell element with full rotational D.O.F.S. *International Journal for Numerical Methods in Engineering* 1997; 40:1785-1800
- K.Y.Sze, S. Yi, M.H. Tay, (1997), An explicit hybrid-stabilized eighteen-node solid element for the shell analysis, *International Journal for Numerical Methods in Engineering*, vol.40, pp. 1839-1856.

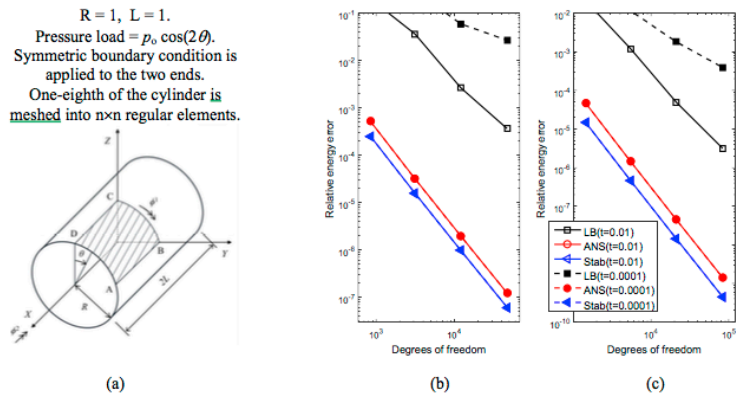


Fig. 2 - (a) The cylindrical shell problem. (b) h-convergence plot for third order elements. (c) h-convergence plot for fourth order elements. (Sze et al 2016).

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K.Y. Sze, S.H. Lo, and L.Q. Yao. Hybrid-stress solid elements for shell structures based upon a modified variational functional. *International Journal for Numerical Methods in Engineering*, 53:2617–2642, 2002.

Kim CH, Sze KY, Kim YH. Curved quadratic triangular degenerated- and solid-shell elements for geometric nonlinear analysis. *Inter.J.Numer.Methods Engrg.*, 57: 2077-2097 (2003)

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L. Q. Yao, K. Y. Sze, A hybrid-stress solid-shell element for nonlinear analysis of piezoelectric structures, *Science in China. Series E: Technological Sciences*, 52 (2009), 575-583.

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