



**Professor Tak-ming Chan**

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<https://www.polyu.edu.hk/cee/staff/academic-staff/chan-t-m>

<http://www.zn903.com/tmchan/>

<https://www.journals.elsevier.com/thin-walled-structures/news/new-editor-for-thin-walled-structures>

Dept. of Civil and Environmental Engineering (CEE)  
The Hong Kong Polytechnic University

**Biography:**

Tak-Ming joined the Department of Civil and Environmental Engineering in July 2014 as an Assistant Professor in Structural Engineering. Tak-Ming graduated from the University of Hong Kong in 2001 with a first class honours degree in Civil Engineering. He started his structural engineering career by joining Arup as a

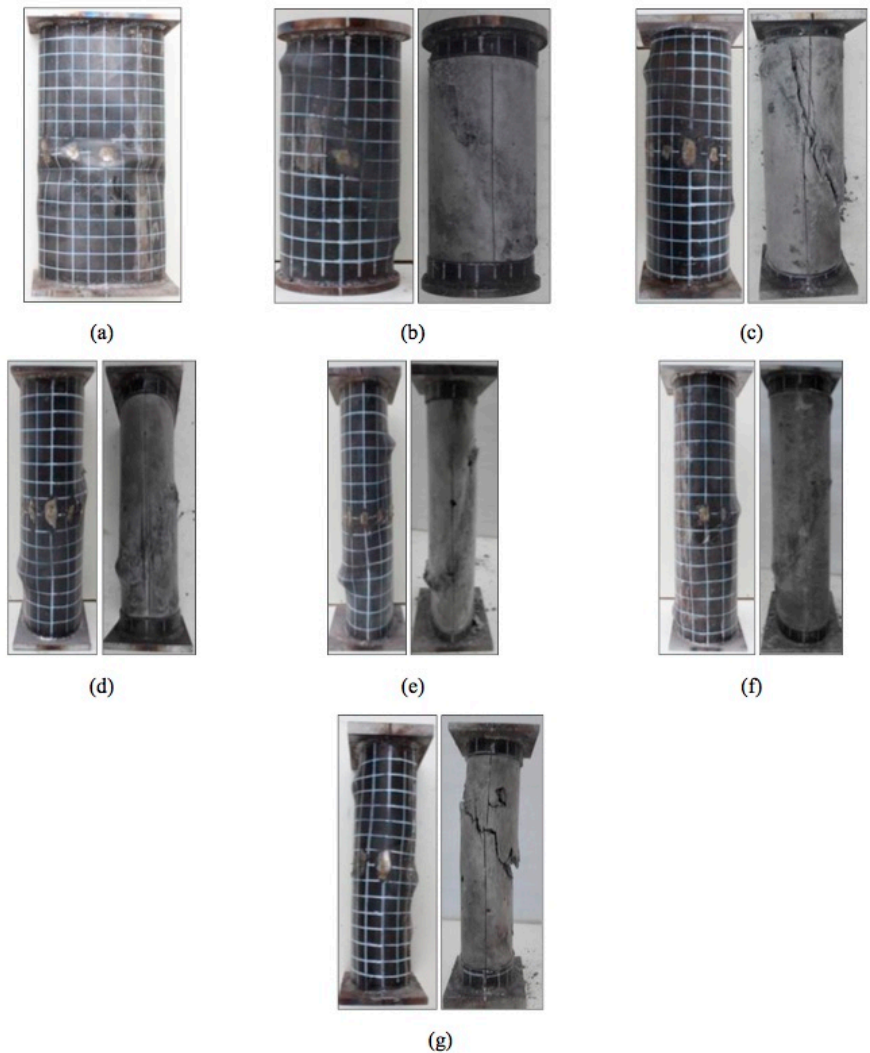


Fig.4 Typical failure modes of specimens: (a) CH20; (b) C10-8; (c) C15-8; (d) C20-8; (e) C25-8; (f) C20-5; and (g) C20-12.

From: Faqi Liu, Yuyin Wang and Tak-ming Chan, "Behaviour of concrete-filled cold-formed elliptical hollow sections with varying aspect ratios", Thin-Walled Structures, Vol. 110, pp 47-61, January 2017

Graduate Structural Engineer. He received his master's degree with Distinction in Structural Steel Design in 2004 and was awarded a PhD in the area of Tubular Structures in 2008 both from Imperial College London. Tak-Ming joined the University of Warwick as an Assistant Professor in 2007 and was then promoted to Associate Professor in 2012. In 2007, he was awarded the First Prize in the Young Researchers' Conference from the Institution of Structural Engineers (*IStructE*). His first and second PhD students also won the First Prize in the 2012 and 2013 competition respectively. He is currently an Honorary Associate Professor at the University of Warwick. He is a Chartered Member of the *IStructE*, committee member of the UK mirror group for Eurocode 3 and the Education and Training Committee of the HK Constructional Metal Structures Association. He is also an Associate Editor for the *Advances in Structural Engineering Journal* and a member of the Editorial Board for the *Structures and Buildings Journal*.

### **Research Interests:**

Tubular structures, Steel structures and steel-concrete composite structures, Pultruded FRP structures and Smart structures, Earthquake and impact engineering

### **Prizes and Awards:**

- o 1<sup>st</sup> Prize, *Cyclic response of hollow and concrete-filled CHS braces*, Midland Counties Branch Structural Engineering Awards, IStructE, UK, 2012
- o Commendation, *Concrete filled elliptical hollow sections*, Midland Counties Branch Structural Engineering Awards, IStructE, UK, 2011
- o 1<sup>st</sup> Prize (*Oral Category*) at the *IStructE* Young Researchers' Conference 2007, UK
- o Joint-Prize Winner, *Poster Competition*, Department of Civil and Environmental Engineering, Imperial College London, UK, 2007
- o Dorothy Hodgkin Postgraduate Awards (PhD research), 2004-2007
- o Chevening Scholarship (MSc degree), 2003-2004
- o Dean's Honours List, Eliot Hall Memorial Scholarship, Hip Hing Scholarship, Scott Wilson Scholarship, The Chinese Manufacturers' Association and Donors Scholarships, 1998-2001

### **Selected Publications:**

- o Gardner, L. and Chan, T.M. (2007). Cross-section classification of elliptical hollow sections. *Steel and Composite Structures*, 7(3), 185–200, Techno Press.
- o Chan, T.M. and Gardner, L. (2008). Compressive resistance of hot-rolled elliptical hollow sections. *Engineering Structures*, 30(2), 522–532, Elsevier.
- o Chan, T.M. and Gardner, L. (2008). Bending strength of hot-rolled elliptical hollow sections. *Journal of Constructional Steel Research*, 64(9), 971–986, Elsevier.
- o Gardner, L., Chan, T.M. and Wade, M.A. (2008). Shear response of elliptical hollow sections. *Structures and Buildings*, Proceedings of Institution of Civil Engineers, 161(SB6), 301–309, Thomas Telford.
- o Theofanous, M., Chan, T.M. and Gardner, L. (2009). Structural response of stainless steel oval hollow section compression members. *Engineering Structures*, 31(4), 922–934, Elsevier.
- o Chan, T.M. and Gardner, L. (2009). Flexural buckling of elliptical hollow section columns. *Journal of Structural Engineering*, 135(5), 546–557, American Society of Civil Engineers.
- o Theofanous M., Chan T.M. and Gardner L. (2009). Flexural behaviour of stainless steel oval hollow sections. *Thin-Walled Structures*, 47(6-7), 776–787, Elsevier.
- o Chan, T.M., Gardner, L. and Law, K.H. (2010). Structural design of elliptical hollow sections: a review. *Structures and Buildings*, Proceedings of Institution of Civil Engineers, 163(SB6), 391–402, Thomas Telford.

- o Gardner, L, Chan, T.M. and Abela, J.M. (2011). Structural behaviour of elliptical hollow sections under combined compression and uniaxial bending. *Advances in Structural Engineering*, 7(1), 86–113, Multi-Science.
- o Sheehan, T., Dai, X.H., Chan, T.M. and Lam, D. (2012). Structural response of concrete-filled elliptical steel hollow sections under eccentric compression. *Engineering Structures*, 45, 314–323, Elsevier.
- o Nguyen-Tien, T., Chan, T.M. and Mottram, J.T. (2013). Influence of boundary conditions and geometric imperfections on lateral-torsional buckling resistance of a pultruded FRP I-Beam by FEA. *Composite Structures*, 100, 233–242, Elsevier.
- o Chen, Y.Y., Sun, W. and Chan, T.M. (2013). Effect of loading protocols on the hysteresis behaviour of structural carbon steel with yield strength up to 460N/mm<sup>2</sup>. *Advances in Structural Engineering*, 16(4), 707–719, Multi-Science.
- o Wang, W., Zhou, Q, Chen, Y.Y., Tong, L.W. and Chan, T.M. (2013). Experimental and numerical investigation on full-scale tension-only concentrically braced steel beam-through frames. *Journal of Constructional Steel Research*, 80, 369–385, Elsevier.
- o Sabbagh, A.B., Chan, T.M., Mottram, J.T. (2013). Detailing of I-beam-to-CHS column joints with external diaphragm plates for seismic actions. *Journal of Constructional Steel Research*, 88, 21–33, Elsevier.
- o A.K., Chan, T.M. and Mottram, J.T. (2013). Civil and Structural engineering applications, recent trends, research and developments on pultruded fiber reinforced polymer closed sections: a review. *Frontiers of Structural and Civil Engineering*, 7(3), 227–244, Springer.
- o Shi, G., Jiang, X., Zhou, W., Chan, T.M. and Zhang, Y. (2013). Experimental investigation and modelling on residual stress of welded steel circular tubes. *International Journal of Steel Structures*, 13(3), 495–508, Springer.
- o Nguyen-Tien, T., Chan, T.M. and Mottram, J.T. (2014). Lateral-torsional buckling resistance by testing for pultruded FRP beams under different loading and displacement boundary conditions. *Composites Part B – Engineering*, Elsevier.
- o Chen, Y.Y., Sun, W. and Chan, T.M. (2014). Cyclic stress-strain behaviour of structural steel with yield-strength up to 460 N/mm<sup>2</sup>. *Frontiers of Structural and Civil Engineering*, 8(2), 178–186, Springer.
- o Nguyen-Tien, T., Chan, T.M. and Mottram, J.T. (2014). Lateral-torsional buckling resistance by testing for pultruded FRP beams under different loading and displacement boundary conditions. *Composites Part B – Engineering*, 60, 306–318, Elsevier.
- o Li, W., Han, H.L. and Chan, T.M. (2014). Numerical investigation on the performance of concrete-filled double-skin steel tubular members under tension. *Thin-Walled Structures*, 79, 108–118, Elsevier.
- o Sheehan, T. and Chan, T.M. (2014). Response of hollow and concrete-filled CHS braces under cyclic loading. *Structures and Buildings, Proceedings of Institution of Civil Engineers*, 167(SB3), 140-152, Thomas Telford. <http://dx.doi.org/10.1680/stbu.12.00033>
- o Li, W., Han, H.L. and Chan, T.M. (2014). Tensile behaviour of concrete-filled double-skin steel tubular members. *Journal of Constructional Steel Research*, 99, 35-46, Elsevier.
- o Gang Shi, Xue Jiang, Wenjing Zhou, Tak-Ming Chan and Yong Zhang, “Experimental study on column buckling of 420 MPa high strength steel welded circular tubes”, *Journal of Constructional Steel Research*, Vol. 100, pp 71-81, September 2014
  - o Tak-Ming Chan, Xiao-Ling Zhao and Ben Young, “Cross-section classification for cold-formed and built-up high strength carbon and stainless steel tubes under compression”, *Journal of Constructional Steel Research*, Vol. 106, pp 289-295, March 2015
  - o Tak-Ming Chan, Yun-Mei Huai and Wei Wang, “Experimental investigation on lightweight concrete-filled cold-formed elliptical hollow section stub columns”, *Journal of Constructional Steel Research*, Vol. 115, pp 434-444, December 2015
  - o Jia-Lin Ma, Tak-Ming Chan and Ben Young, “Experimental investigation on stub-column behavior of cold-formed high-strength steel tubular sections”, *ASCE Journal of Structural Engineering*, Vol. 142, No. 5, May

2016

- o Lu Yang, Menghan Zhao, Tak-Ming Chan, Fan Shang and Dongchen Xu, “Flexural buckling of welded austenitic and duplex stainless steel I-section columns”, *Journal of Constructional Steel Research*, Vol. 122, pp 339-353, July 2016
- o Jia-Lin Ma, Tak-Ming Chan and Ben Young, “Experimental investigation of cold-formed high strength steel tubular beams”, *Engineering Structures*, Vol. 126, pp 200-209, November 2016
- o Faqi Liu, Yuyin Wang and Tak-ming Chan, “Behaviour of concrete-filled cold-formed elliptical hollow sections with varying aspect ratios”, *Thin-Walled Structures*, Vol. 110, pp 47-61, January 2017
- o Jia-Lin Ma, Tak-Ming Chan and Ben Young, “Design of cold-formed high strength steel tubular beams”, *Engineering Structures*, Vol. 151, pp 432-443, November 2017
- o Hua Yang, Faqi Liu, Tak-ming Chan and Wei Wang, “Behaviours of concrete-filled cold-formed elliptical hollow section beam-columns with varying aspect ratios”, *Thin-Walled Structures*, Vol. 120, pp 9-28, November 2017
- o Xiaoyi Lan, Tak-Ming Chan and Ben Young, “Static strength of high strength steel CHS X-joints under axial compression”, *Journal of Constructional Steel Research*, Vol. 138, pp 369-379, November 2017
- o Xiaoyi Lan, Junbo Chen, Tak-Ming Chan and Ben Young, “The continuous strength method for the design of high strength steel tubular sections in compression”, *Engineering Structures*, Vol. 162, pp 177-187, May 2018
- o Jia-Lin Ma, Tak-Ming Chan and Ben Young, “Design of cold-formed high-strength steel tubular stub columns”, *ASCE Journal of Structural Engineering*, Vol. 144, No. 6, June 2018
- o Han Fang and Tak-Ming Chan, “Axial compressive strength of welded S460 steel columns at elevated temperatures”, *Thin-Walled Structures*, Vol. 129, pp 213-224 August 2018
- o Jiong-Yi Zhu and Tak-Ming Chan, “Experimental investigation on octagonal concrete filled steel stub columns under uniaxial compression”, *Journal of Constructional Steel Research*, Vol. 147, pp 457-467, August 2018
- o Han Fang, Tak-Ming Chan and Ben Young, “Structural performance of cold-formed high strength steel tubular columns”, *Engineering Structures*, Vol. 177, pp 473-488, 15 December 2018