

**Professor Xiong Zhang** 



From: Xiong Zhang, Hui Zhang and Zhuzhu Wen, "Experimental and numerical studies on the crush resistance of aluminum honeycombs with various cell configurations", International Journal of Impact Engineering, Vol. 66, pp 48-59, April 2014

### See: http://english.civil.hust.edu.cn/faculty/directory-detail/1767

School of Civil Engineering and Mechanics Huazhong University of Science and Technology

## **Research Interests:**

Impact dynamics, Structure optimization, Energy absorption, Structural Crashworthiness, Thin-walled structures, Cellular materials, Numerical simulation

## **Education:**

PH.D. of Computational mechanics 2008 Dalian University of Technology Master of Solid Mechanics 2004 Wuhan University of Technology Bachelor of Civil Engineering 2001 Wuhan University of Technology

# **Professional Experience:**

Associate Professor (2012- present); Huazhong University of Technology Lecturer (2010-2012) Huazhong University of Technology Post-doctoral (2008-2009) Korea advanced institute of Science and Technology

## **Selected Publications:**

1. Zhang X, Huh H. Energy absorption of longitudinally grooved square tubes under axial compression, Thin Wall Struct, 2009; 47(12): 1469-1477.

2. Zhang X, Huh H. Crushing analysis of polygonal columns and angle elements, Int J Impact Eng, 2010; 37(4): 441-451.

3. Zhang X, Zhang H. Numerical and theoretical studies on energy absorption of three-panel angle elements, Int J Impact Eng, 2012; 46(0): 23-40.

4. Zhang X, Zhang H. Experimental and numerical investigation on crush resistance of polygonal columns and angle elements, Thin Wall Struct, 2012; 57(0): 25-36.

5. Zhang X, Zhang H. Theoretical and numerical investigation on the crush resistance of rhombic and kagome honeycombs, Compos Struct, 2013; 96(0): 143-152.

6. Zhang X, Zhang H. Energy absorption limit of plates in thin-walled structures under compression, Int J Impact Eng, 2013; 57(0): 81-98.

7. Zhang X, Zhang H. Optimal design of functionally graded foam material under impact loading, Int J Mech Sci, 2013; 68(0): 199-211.

8. Zhang X, Zhang H. Energy absorption of multi-cell stub columns under axial compression, Thin Wall Struct, 2013; 68(0): 156-163.

Lin-Xin Peng, Shi-tao Yan, Gui-kai Mo and Xiong Zhang, "Free vibration analysis of corrugated-core sandwich plates using a meshfree Galerkin method based on the first-order shear deformation theory", International Journal of Mechanical Sciences, Vol. 78, pp 8-18, January 2014

Xiong Zhang and Hui Zhang, "Axial crushing of circular multi-cell columns", International Journal of Impact Engineering, Vol. 65, pp 110-125, March 2014

Xiong Zhang, Hui Zhang and Zhuzhu Wen, "Experimental and numerical studies on the crush resistance of aluminum honeycombs with various cell configurations", International Journal of Impact Engineering, Vol. 66, pp 48-59, April 2014

Xiong Zhang, Zhuzhu Wen and Hui Zhang, "Axial crushing and optimal design of square tubes with graded thickness", Thin-Walled Structures, Vol. 84, pp 263-274, November 2014

Xiong Zhang, Hui Zhang and Zhuzhu Wen, "Axial crushing of tapered circular tubes with graded thickness", International Journal of Mechanical Sciences, Vol. 92, pp 12-23, March 2015

Xiong Zhang and Hui Zhang, "Relative merits of conical tubes with graded thickness subjected to oblique impact loads", International Journal of Mechanical Sciences, Vol. 98, pp 111-125, July 2015

Xiong Zhang and Hui Zhang, "Some problems on the axial crushing of multi-cells", International Journal of Mechanical Sciences, Vol. 103, pp 30-39, November 2015

Xiong Zhang, Hui Zhang and Zong Wang, "Bending collapse of square tubes with variable thickness", International Journal of Mechanical Sciences, Vol. 106, pp 107-116, February 2016

Hui Zhang and Xiong Zhang, "Crashworthiness performance of conical tubes with nonlinear thickness distribution", Thin-Walled Structures, Vol. 99, pp 35-44, February 2016

Xiong Zhang and Hui Zhang, "Crush resistance of square tubes with various thickness configurations", International Journal of Mechanical Sciences, Vol. 107, pp 58-68, March 2016