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Selected Publications:

Guangyong Sun, Fengxiang Xu, Jinguan Fang, Shujuan Hou and Qing Li, "Optimization of functionally-graded configurations for crashworthiness design of thin walled structures", 11th World Congress on Computational Mechanics (WCCM XI) and 5th European Conference on Computational Mechanics (ECCM V) and 6th European Conference on Computational Fluid Dynamics (ECFD VI), July 20-25, Barcelona, Spain, 2014

Fengxiang Xu, Guangyong Sun, Guangyao Li and Qing Li, "Experimental study on crashworthiness of tailor-welded blank (TWB) thin-walled high-strength steel (HSS) tubular structures", *Thin-Walled Structures*, Vol. 74, pp 12-27, January 2014

Guangyong Sun, Fengxiang Xu, Guangyao Li and Qing Li, "Crashing analysis and multiobjective optimization for thin-walled structures with functionally graded thickness", *International Journal of Impact Engineering*, Vol. 64, pp 62-74, February 2014

Guangyao Li, Zheshuo Zhang, Guangyong Sun, Fengxiang Xu and Xiaodong Huang, "Crushing analysis and multiobjective optimization for functionally graded foam-filled tubes under multiple load cases", *International Journal of Mechanical Sciences*, Vol. 89, pp 439-452, December 2014

Guangyao Li, Fengxiang Xu, Guangyong Sun and Qing Li, "A comparative study on thin-walled structures with functionally graded thickness (FGT) and tapered tubes withstanding oblique impact loading", *International Journal of Impact Engineering*, Vol. 77, pp 68-83, March 2015

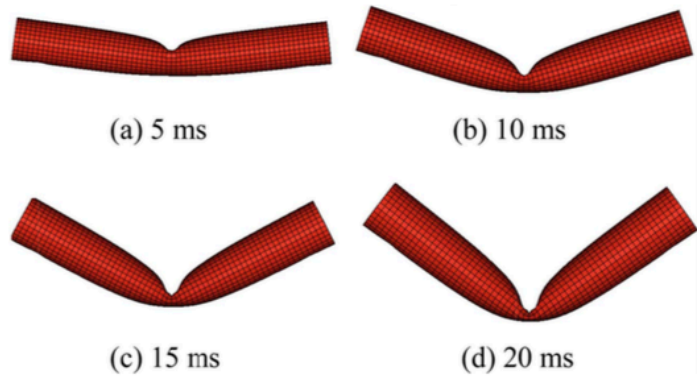


Figure 8. Deformation models of the FE simulation at different time stages.

From: Fengxiang Xu, Xiaojin Wan, and Yisong Chen, "Design optimization of thin-walled circular tubular structures with graded thickness under later impact loading," *Int J Automotive Technol.*, vol. 18, no. 3, pp. 439–449. June 2017

Guangyong Sun, Xuanyi Tian, Jianguang Fang, Fengxiang Xu, Guangyao Li and Xiaodong Huang, “Dynamical bending analysis and optimization design for functionally graded thickness (FGT) tube”, *International Journal of Impact Engineering*, Vol. 78, pp 128-137, April 2015

Guangyao Li, Fengxiang Xu, Guangyong Sun and Qing Li, “Crashworthiness study on functionally graded thin-walled structures”, *International Journal of Crashworthiness*, Vol. 20, No. 3, pp 280-300, 2015

Fengxiang Xu and Chao Wang, “Dynamic axial crashing of tailor-welded blanks (TWBs) thin-walled structures with top-hat shaped section”, *Advances in Engineering Software*, Vol. 96, pp 70-82, June 2016

Libin Duan, Ning-cong Xiao, Guangyao Li, Fengxiang Xu, Tao Chen and Aiguo Cheng, “Bending analysis and design optimization of tailor-rolled blank thin-walled structures with top-hat sections”, *International Journal of Crashworthiness*, Vol. 22, No. 3, pp 227-242, 2017

Fengxiang Xu, Xiaojin Wan, and Yisong Chen, “Design optimization of thin-walled circular tubular structures with graded thickness under later impact loading,” *Int J Automotive Technol.*, vol. 18, no. 3, pp. 439–449. June 2017

Fengxiang Xu, Suo Zhang and Kunying Wu, “Design of energy-absorbed structures and materials with graded configurations in the automotive body”, *Advances in Automobile Engineering*, Vol. 7, No. 1, 2018

Suo Zhang and Fengxiang Xu, “A two-stage hybrid optimization for honeycomb-type cellular structures under out-of-plane dynamic impact”, *Applied Mathematical Modelling*, Vol. 80, pp 755-770, April 2020