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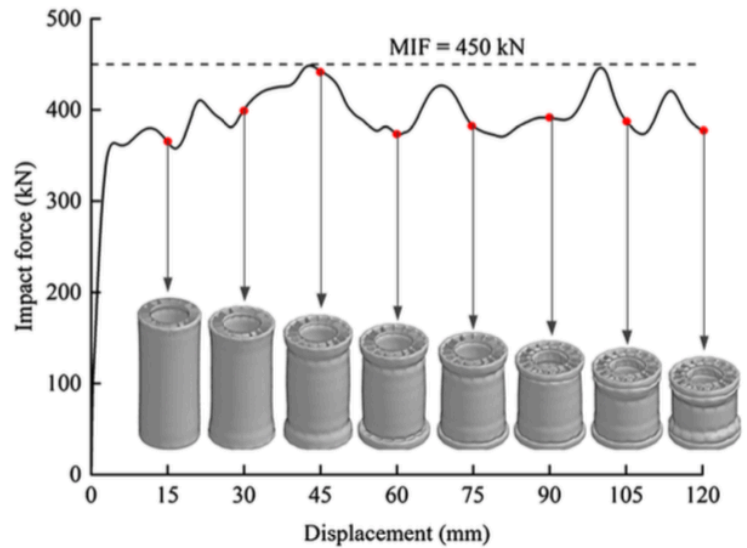


Fig. 14 Force-displacement curves and deformed profiles of optimal design of HBTS16 with $MIF \leq 450$ kN

From: Youye Xiao, Hanfeng Yin, Hongbing Fang and Guilin Wen, “Crashworthiness design of horsetail-bionic thin-walled structures under axial dynamic loading”, *International Journal of Mechanics and Materials in Design*, Vol. 12, pp 563-576, 2016

See:

<https://pages.uncc.edu/connections/people/hfang/>
https://www.researchgate.net/scientific-contributions/14199869_Hongbing_Fang
<https://scholar.google.com/citations?user=oRDrUsgAAAAJ&hl=en>

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Selected Publications:

Fang HB, Rais-Rohani M, Liu Z, Horstemeyer MF. A comparative study of metamodeling methods for multi-objective crashworthiness optimization. *Comput Struct* 2005;83(25-26):2121–36.
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Y.J. Xiang, Q. Wang, Z.J. Fan, H.B. Fang, “Optimal crashworthiness design of a spot-welded thin-walled hat section”, *Finite Elem. Anal. Des.*, 42 (2006), pp. 846-855
Fang HB, Wang Q. On the effectiveness of assessing model accuracy at design points for radial basis functions. *Commun Numer Methods Eng* 2008;24(3):219–35.
J. Bi, H.B. Fang, Q. Wang, and X.C. Ren, Modeling and optimization of foam-filled walled columns for crashworthiness designs, *Finite Elem. Anal. Des.* 46 (9) (2010), pp. 698–709.
Hanfeng Yin, Guilin Wen, Hongbing Fang, Qixiang Qing, Xiangzheng Kong, Jiuru Xiao and Zhibo Liu, “Multiobjective crashworthiness optimization design of functionally graded foam-filled tapered tube based on dynamic ensemble metamodel”, *Materials and Design*, Vol. 55, pp 747-757, 2014

Hanfeng Yin, Hongbing Fang, Youye Xiao, Guilin Wen and Qixiang Qing, “Multi-objective robust optimization of foam-filled tapered multi-cell thin-walled structures”, Structural Multidisciplinary Optimization, July 2015

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Hanfeng Yin, Youye Xiao, Guilin Wen and Hongbing Fang, “Design optimization of a new W-beam guardrail for enhanced highway safety performance”, Advances in Engineering Software, Volume 112, October 2017, Pages 154-164

Ziang Yu, Hongbin Fang, Fangsen Cui, Li Cheng and Zhenbo Lu, “Origami-inspired foldable sound barrier designs”, Journal of Sound and Vibration, Vol. 442, pp 514-526, 3 March 2019