

Figure 1. Model information: (a) unit cell of pyramidal truss and (b) the filled sandwich panel.



Professor Lingling Lu

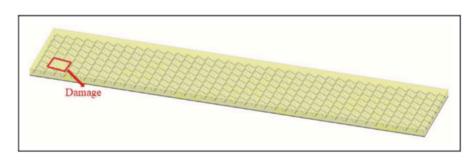


Figure 2. Example of damaged specimen.

From: Jie Le, Lingling Lu, Yabo Wang, Hongwei Song, Xiaodong Xing and Chenguang Huang, "Damage identification of low-density material-filled sandwich panels with truss core based on vibration properties", Structural Health Monitoring, December 2018

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Research Interests:

Prof. Lu's research interests include: Vibration-based structural damage identification; Optimal sensor placement; Sandwich panels with truss core. Her current research is focused on Damage identification of sandwich panel with truss core under thermal environment; Vibration property and damage identification of pipeline.

Selected Papers:

Y.-P. Wei, J.-L. Zou, Chenguang Huang, Lingling Lu, Xianqian Wu, W.-G. Xia and Q.-Y. Yin, "Experimental and numerical research on the energy absorption behavior of thin-walled tube under impact load", Binggong Xuebao/Acta Armamentarii, Vol. 35, pp 244-250, 1 December 2014

Zhe Yang, He Yan, Chenguang Huang, Xingzhong Diao, Xianqian Wu, Shaohua Wang, Lingling Lu, Lijuan Liao and Yanpeng Wei, "Experimental and numerical study of circular, stainless thin tube energy absorber under axial impact by a control rod", Thin-Walled Structures, Vol. 82, pp 24-32, September 2014 Lingling Lu, Xi Wang, Lijuan Liao, Yanpeng Wei, Chenguang Huang and Yanchi Liu, "Application of model reduction technique and structural subsection technique on optimal sensor placement of truss structures", Smart Structures and Systems, Vol. 15, pp 355-373, 25 February 2015

Wu Yuan, Hongwei Song, Lingling Lu and Chenguang Huang, "Effect of local damages on the buckling behaviour of pyramidal truss core sandwich panels", Composite Structures, Vol. 149, pp 271-278, August 2016 Lingling Lu, Hong-Wei Song, Wu Yuan, and Chenguang Huang, Baseline-free damage identification of metallic sandwich panels with truss core based on vibration characteristics", Structural Health Monitoring, Vol. 16, 15 September 2016

Jie Le, Lingling Lu, Yabo Wang, Hongwei Song, Xiaodong Xing and Chenguang Huang, "Damage identification of low-density material-filled sandwich panels with truss core based on vibration properties", Structural Health Monitoring, December 2018

Yabo Wang, Lingling Lu and Hongwei Song, "Using deep learning techniques for sandwich panels with truss core damage detection", IOP Conference Series: Materials Science and Engineering, Vol. 563, 042028, 2019 Lingling Lu, Jie Le, Hongwei Song, Yabo Wang and Chenguang Huang, "Damage detection of sandwich panels with truss core based on time domain dynamic responses", Composite Structures, Vol. 211, pp 443-454, 1 March 2019

Lingling Lu, Hongwei Song, Yiwei Wang and Chenguang Huang, "Deformation behavior of non-rigid airships in wind tunnel tests", Chinese Journal of Aeronautics, 2019

Xiaocui Wu, Yiwei Wang, Chenguang Huang, Yubiao Liu and Lingling Lu, "Experiment and numerical simulation on the characteristics of fluid-structure interactions of non-rigid airships", Theoretical and Applied Mechanics Letters, 2019 (in press)