



Dr. Peng Hao

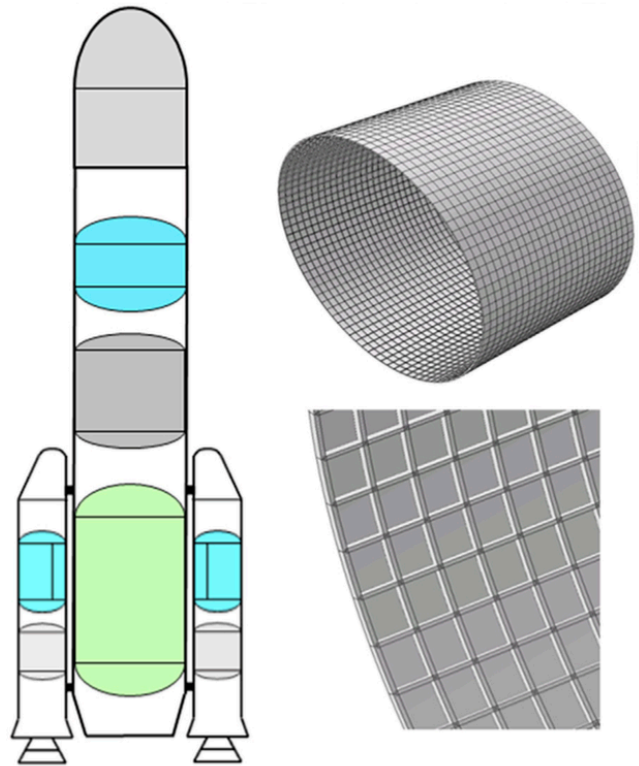


Fig. 1. Applications of cylindrical stiffened shells in launch vehicle.

From: Hao P, Wang B, Li G, et al. Surrogate-based optimization of stiffened shells including load-carrying capacity and imperfection sensitivity. *Thin-Walled Structures*, 72(15): 164-174, 2013

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Biography:

Dr. Peng Hao is Assistant Professor of Dalian University of Technology. He is currently ISSMO member. Dr. Hao was awarded "Outstanding Young Scientist" in the 7th China-Japan-Korea Joint Symposium on Optimization of Structural and Mechanical Systems. He has published over 30 journal articles indexed by SCI/EI, and is author of two national invention patents.

Education:

Ph.D. Dalian University of Technology & China Academy of Launch Vehicle Technology

Research Interests:

Reliability analysis; Buckling and instability; Structural optimization; Imperfection sensitivity; Composite structures; Finite element analysis (isogeometric analysis)

Selected Publications:

- [1] Hao P, Wang B, Li G. Surrogate-based optimum design for stiffened shells with adaptive sampling. *AIAA Journal*, 50(11): 2389-2407, 2012.
- [2] Hao P, Wang B, Li G, et al. Hybrid framework for reliability-based design optimization of imperfect stiffened shells. *AIAA Journal*, 53(10): 2878-2889, 2015.
- [3] Hao P, Wang B, Tian K, et al. Efficient optimization of cylindrical stiffened shells with reinforced cutouts by curvilinear stiffeners. *AIAA Journal*, 2016.
- [4] Hao P, Wang B, Du KF, et al. Imperfection-insensitive design of stiffened conical shells based on perturbation load approach. *Composite Structures*, 136: 405-413, 2016.
- [5] Hao P, Wang B, Li G, et al. Surrogate-based optimization of stiffened shells including load-carrying capacity and imperfection sensitivity. *Thin-Walled Structures*, 72(15): 164-174, 2013.
- [6] Hao P, Wang B, Li G, et al. Hybrid optimization of hierarchical stiffened shells based on smeared stiffener method and finite element method. *Thin-Walled Structures*, 2014, 82: 46-54.
- [7] Hao P, Wang B, Li G, et al. Worst Multiple Perturbation Load Approach of stiffened shells with and without cutouts for improved knockdown factors. *Thin-Walled Structures*, 2014, 82: 321-330.
- [8] Hao P, Wang B, Tian K, et al. Influence of imperfection distributions for cylindrical stiffened shells with weld lands. *Thin-Walled Structures*, 2015, 93: 177-187.
- [9] Hao P, Wang B, Tian K, et al. Optimization of curvilinearly stiffened panels with single cutout concerning the collapse load. *International Journal of Structural Stability and Dynamics*, 2016, 16, 1550036 (21 pages).
- [10] Wang B, Hao P, Li G, et al. Generatrix shape optimization of stiffened shells for low imperfection sensitivity. *Science China*, 2014, 57(10): 2012-2019.
- [11] Meng Z, Hao P, Li G, et al. Non-probabilistic reliability-based design optimization of stiffened shells under buckling constraint. *Thin-Walled Structures*, 2015, 94: 325-333.
- [12] Wang B, Tian K, Hao P, et al. Hybrid Analysis and Optimization of Hierarchical Stiffened Plates Based on Asymptotic Homogenization Method. *Composite Structures*, 2015, 132: 136-147. S
- [13] Li G, Fang YC, Hao P. Three-point bending deflection and failure mechanism map of sandwich beams with second-order hierarchical corrugated truss core. *Journal of Sandwich Structures and Materials*, 2016.
- [14] Li G, Meng Z, Hao P. A hybrid reliability-based design optimization approach with adaptive chaos control using kriging model. *International Journal of Computational Methods*, 2016.
- [15] Wang B, Hao P, Li G, et al. Determination of realistic worst imperfection for cylindrical shells using surrogate model. *Structural and Multidisciplinary Optimization*, 2013, 48(4): 777-794.
- [16] Wang B, Hao P, Li G, et al. Two-stage size-layout optimization of axially compressed stiffened panels. *Structural and Multidisciplinary Optimization*, 2014, 50(2): 313-327.
- [17] Wang B, Hao P, Li G, et al. Optimum design of hierarchical stiffened shells for low imperfection sensitivity. *Acta Mechanica Sinica*, 2014, 30(3): 391-402.
- [18] Meng Z, Li G, Wang BP, Hao P. A hybrid chaos control approach of the performance measure functions for reliability-based design. *Computers & Structures*, 2015, 146: 32-43.