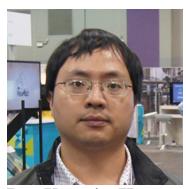


Fig. 2 3D-FEM model of the shell



Dr. Youqin Huang



Fig. 3 First 100 orders of natural frequency of the shell

From: Ming Gu and Youqin Huang, "Equivalent static wind loads for stability design of large span roof structures", Wind and Structures, Vol. 20, No. 1, pp 95-115, 2015

See:

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Biography:

Youqin Huang has his expertise in evaluating the dynamic stability of structures. He has constructed a fresh method to investigate the stability of structure subject to arbitrary parametric excitation. He has also studied the stability of long span wind-sensitive roofs under stochastic wind loads or joint actions of wind and snow, and proposed a method to calculate the equivalent static wind load for the stability design in practical engineering.

Selected Publications:

Y. Q. Huang, H. W. Lu, J. Y. Fu, A. R. Liu and M. Gu, Dynamic stability of Euler beams under axial unsteady wind force, Math. Probl. Eng. 434868 (2014) 1–12

You-Qin Huang, Liang Zhang and Ji-Yang Fu, "Wind-induced vibration and equivalent wind load of double-layer cylindrical latticed shells", Journal of Vibroengineering, Vol. 16, No. 2, March 2014

Ming Gu and Youqin Huang, "Equivalent static wind loads for stability design of large span roof structures", Wind and Structures, Vol. 20, No. 1, pp 95-115, 2015

Y. Q. Huang, A. R. Liu, Y. Pi, H. W. Lu and W. Gao, Assessment of lateral dynamic instability of columns under an arbitrary periodic axial load owing to parametric resonance, J. Sound Vib. 395 (2017) 272–293. Airong Liu. Hanwen Lu, Jiyang Fu, Yong-Lin Pi, Youqin Huang, Jing Li and Yuwei Ma, "Analytical and experimental studies on out-of-plane dynamic instability of shallow circular arch based on parametric resonance", Nonlinear Dynamics, Vo. 87, pp 677-694, 2017

Youqin Huang, Jiyang Fu, Di Wu, Airong Liu, Wei Gao and Yonglin Pi, "Dynamic stability of slender concrete-filled steel tubular columns with general supports", International Journal of Structural Stability and

Dynamics, Vol. 19, No. 4, 1950045, April 2019

Youqin Huang, Jiyang Fu and Airong Liu, "Dynamic instability of Euler-Bernoulli nanobeams subject to parametric excitation", Composites Part B: Engineering, Vol. 164, pp 226-234, 1 May 2019

Di Wu, Airong Liu, Yonghui Huang, Youqin Huang, Yonglin Pi and Wei Gao, "Time dependent uncertain free vibration analysis of composite CFST structure with spatially dependent creep effects", Applied Mathematical Modelling, Vol. 75, pp 589-606, November 2019

Y. Q. Huang, J. Y. Fu, A. R. Liu, Y. L. Pi, D. Wu and W. Gao, Effect of concrete creep on dynamic stability behavior of slender concrete-filled steel tubular column, Compos. B, Eng. 157 (2019) 173–181.