



Professor Maloy K. Singha

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- https://www.researchgate.net/profile/Maloy_Singha
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Department of Applied Mechanics
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Education:

B.E., Civil Engineering, 1995, Jalpaiguri Government Engineering College, Jalpaiguri, West Bengal.
 M.Tech., Civil (Structural Engineering), 1997, Indian Institute of Technology Kanpur.
 Ph.D., Civil (Structural Engineering), 2002, Indian Institute of Technology Kharagpur.

Employment:

Jun 2001 – Dec 2004, Engineer, GE Aircraft Engines, GE India Technology Center, Bangalore.
 Dec 2004 – Apr 2011, Assistant Professor, Indian Institute of Technology Delhi.
 Apr 2011 – present, Associate Professor, Indian Institute of Technology Delhi.

Research Interests:

Plates and shells, Composite structures, Nonlinear finite element analysis, Nonlinear dynamics, Textile composites, Impact mechanics

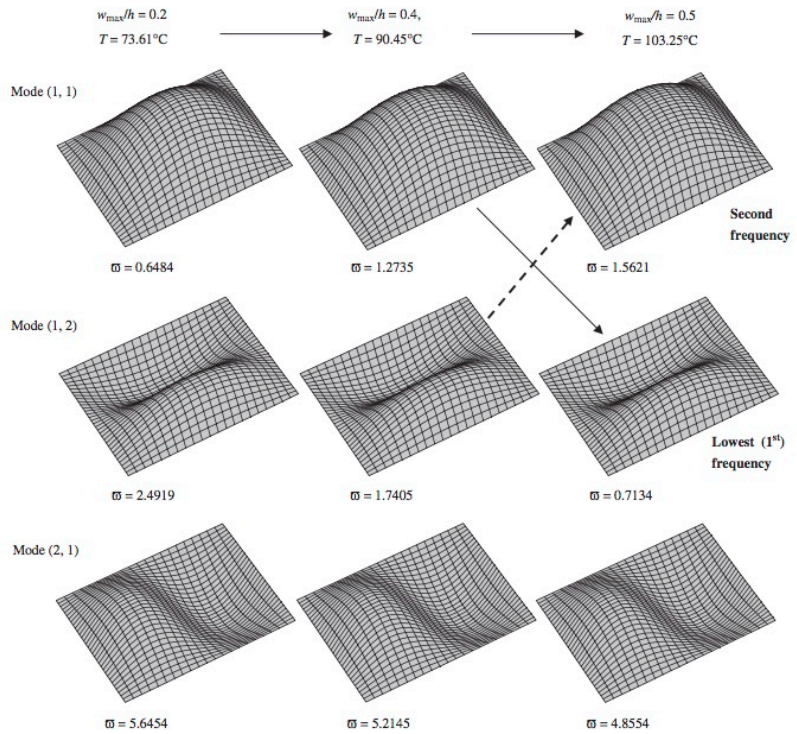


Fig. 4. The vibration mode along the postbuckling paths.

From: Maloy K. Singha, L.S. Ramachandra and J.N. Bandyopadhyay, "Vibration behavior of thermally stressed composite skew plate", Journal of Sound and Vibration, Vol. 296, pp 1093-1102, 2006

Selected Publications:

- Singha, M. K. 2001. "Thermomechanical stability and optimization of composite plates and shells." Ph.D. Dissertation, IIT, Kharagpur, India.
- M. K. Singha, L. S. Ramachandra, J. N. Bandyopadhyay, 'Thermal postbuckling analysis of laminated plates' *Compos. Struct.* 54 4 (2001): 453-458
- Singha M K, Ramachandra L, Bandyopadhyay J. Stability and strength of composite skew plates under thermomechanical loads. *AIAA Journal*, 2001, 39(8): 1618–1623
- Singha, M. K., Ramachandra, L. S., and Bandyopadhyay, J. N. 2003. "Thermomechanical postbuckling response and first-ply failure analysis of doubly curved panels." *AIAA J.*, 41(12), 2486–2491.
- M.K. Singha, M. Ganapathi, "A parametric study on supersonic flutter behavior of laminated composite skew flat panels", *Compos Struct*, 69 (1) (2005), pp. 55-63
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- Daripa, R., Singha, M.K.: Nonlinear vibration characteristics of point supported isotropic and symmetrically laminated plates. *J. Aerosp. Sci. Technol.* 62(2), 83 (2010)
- Singha M.K., Daripa R.: Nonlinear vibration and dynamic stability analysis of composite plates. *J. Sound Vib.* 328, 541–554 (2009)
- Singha MK, Prakash T, Ganapathi M. Finite element analysis of functionally graded plates under transverse load. *Finite Elem Anal Des* 2011;47(4):453–60.
- Prakash T, Singha MK, Ganapathi M (2012) A finite element study on the large amplitude flexural vibration characteristics of FGM plates under aerodynamic load. *Int J Nonlinear Mech* 47(5):439–447
- Madhukar S, Singha MK. Geometrically nonlinear finite element analysis of sandwich plates using normal deformation theory. *Compos Struct* 2013;97:84–90.
- T. Prakash, M.K. Singha, and M.A. Ganapathi, Finite element study on the large amplitude flexural vibration characteristics of FGM plates under aerodynamic load, *Int. J. Non-Linear Mech.*, vol. 24, no. 3, pp. 184–193, 2013
- G. Watts, M.K. Singha, S. Pradyumna, Nonlinear bending analysis of isotropic plates supported on winkler foundation using element free Galerkin method, *Int J Struct Civ Eng Res*, 4 (4) (2015), pp. 301–307

Mehnaz Rasool and M.K. Singha, "A finite element study on the nonlinear behavior of rectangular shear panels", *Thin-Walled Structures*, Vol. 104, pp 248-258, July 2016

Amit Kumar, M.K. Singha and Vikrant Tiwari, "Nonlinear bending and vibration analyses of quadrilateral composite plates", *Thin-Walled Structures*, Vol. 113, pp 170-180, April 2017

G. Watts, S. Pradyumna, M.K. Singha, "Nonlinear analysis of quadrilateral composite plates using moving kriging based element free Galerkin method", *Compos. Struct.*, 159 (2017), pp. 719-727

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Gaurav Watts, M.K. Singha and S. Pradyumna, "A numerical study on the nonlinear behavior of corner supported flat and curved panels", *Archive of Applied Mechanics*, Vol. 88, No. 4, pp 503-516, April 2018

Gaurav Watts, S. Pradyumna and M.K. Singha, "Free vibration analysis of non-rectangular plates in contact with bounded fluid using element free Galerkin method", *Ocean Engineering*, Vol. 160, pp 438-448, July 2018