



## Professor Keivan Kiani

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### Education:

2011 Ph.D. Sharif University of Tehnology  
 2002 MS. Sharif University of Technology  
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### Research Interests:

Nanomechanics; Vibration; Nonlocal Elasticity

### Selected Publications:

Kiani, K., Nikkhoo, A., Mehri, B.: Prediction capabilities of classical and shear deformable beam models excited by a moving mass. *J. Sound Vib.* 320(3), 632–648 (2009).

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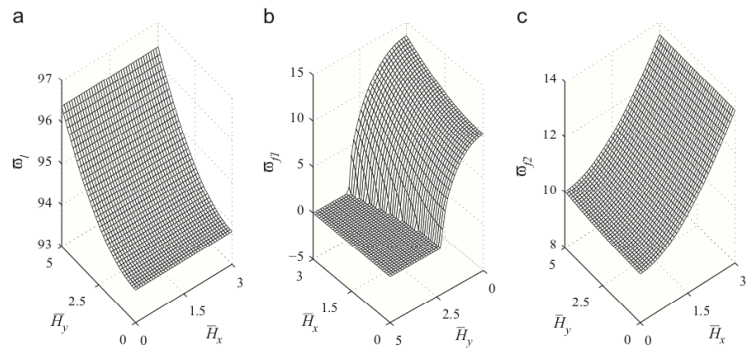


Fig. 4. Dimensionless fundamental longitudinal and transverse frequencies in terms of the dimensionless longitudinal and transverse magnetic fields: (a)  $\bar{\omega}_l$  vs.  $\bar{H}_x$  and  $\bar{H}_y$ , (b)  $\bar{\omega}_{l1}$  vs.  $\bar{H}_x$  and  $\bar{H}_y$ , (c)  $\bar{\omega}_{l2}$  vs.  $\bar{H}_x$  and  $\bar{H}_y$ ; ( $\bar{H}_z = \bar{H}_y$ ,  $\lambda = 30$ ,  $\epsilon_0 a = 2$  nm).

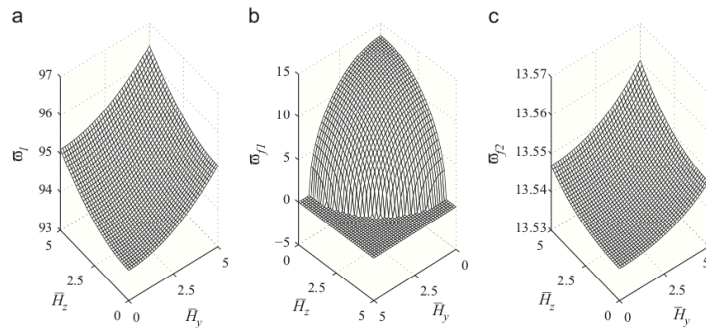


Fig. 5. Dimensionless fundamental longitudinal and transverse frequencies in terms of the dimensionless transverse magnetic fields: (a)  $\bar{\omega}_l$  vs.  $\bar{H}_x$  and  $\bar{H}_y$ , (b)  $\bar{\omega}_{l1}$  vs.  $\bar{H}_x$  and  $\bar{H}_y$ , (c)  $\bar{\omega}_{l2}$  vs.  $\bar{H}_x$  and  $\bar{H}_y$ ; ( $H_x = 3$ ,  $\lambda = 30$ ,  $\epsilon_0 a = 2$  nm).

From: Keivan Kiani, “Vibration and instability of a single-walled carbon nanotube in a three-dimensional magnetic field”, *Journal of Physics and Chemistry of Solids*, Vol. 75, pp 15-22, 2014

Kiani, K., Nikkhoo, A., Mehri, B.: Assessing dynamic response of multispan viscoelastic thin beams under a moving mass via generalized moving least square method. *Acta Mech. Sin.* 26, 721–733 (2010)

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Kiani, K.: Application of nonlocal beam models to double-walled carbon nanotubes under a moving nanoparticle. Part II: parametric study. *Acta Mech.* 216, 197–206 (2011)

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