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Corrigendum to "Shear wave propagation in finitely deformed 3D fiber-reinforced composites" [Int. J. Solids Struct. 110–111 (2017) 294–304]

Pavel I. Galich, Viacheslav Slesarenko, Stephan Rudykh*

Department of Aerospace Engineering, Technion – Israel Institute of Technology, Haifa 32000, Israel

In our paper (Galich et al., 2017), Figs. 7–9 show frequencies as functions of wavenumber K^0 (in the undeformed configuration); thus, in Figs. 7–9, $K^0 = |\mathbf{K}^0|$ must replace $k = |\mathbf{k}|$ (in the deformed configuration). Recall that the corresponding wave vectors in the undeformed

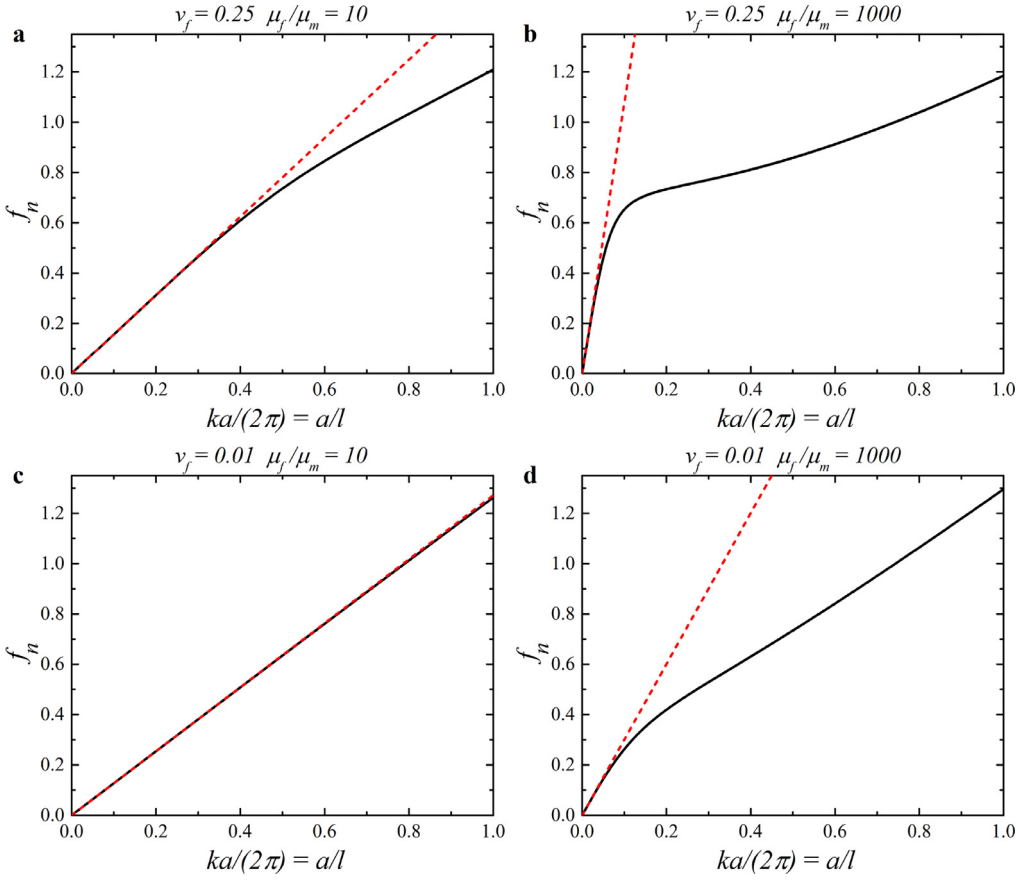


Fig. 1. Comparison of the long wave estimates (33) and the Bloch wave numerical analysis for the shear waves propagating in the direction of fibers. Periodic FCs with $v_f = 0.25$ and (a) $\mu_f/\mu_m = 10$, (b) $\mu_f/\mu_m = 1000$, and $v_f = 0.01$ and (c) $\mu_f/\mu_m = 10$, (d) $\mu_f/\mu_m = 1000$ are subjected to the uniaxial tension along the fiber direction, $\lambda = 1.25$. Frequency is normalized as $f_n = \frac{\omega a}{2\pi}\sqrt{\tilde{\rho}_0/\tilde{\mu}}$.

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* Corresponding author.
E-mail address: rudykh@technion.ac.il (S. Rudykh).

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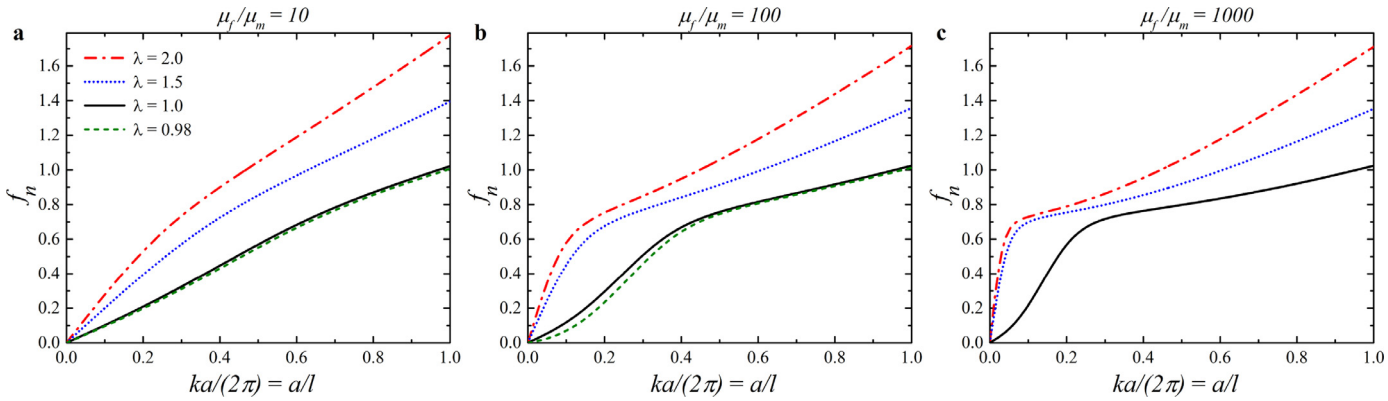


Fig. 2. Dispersion curves for the shear waves propagating in the direction of fibers in FCs with $v_f = 0.25$ and (a) $\mu_f/\mu_m = 10$, (b) $\mu_f/\mu_m = 100$, and (c) $\mu_f/\mu_m = 1000$. The FCs are subjected to the uniaxial tension of the magnitude $\lambda = 0.98$ (dashed green curves), $\lambda = 1$ (continuous black curves), $\lambda = 1.5$ (dotted blue curves), and $\lambda = 2$ (dash-dotted red curves). (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)

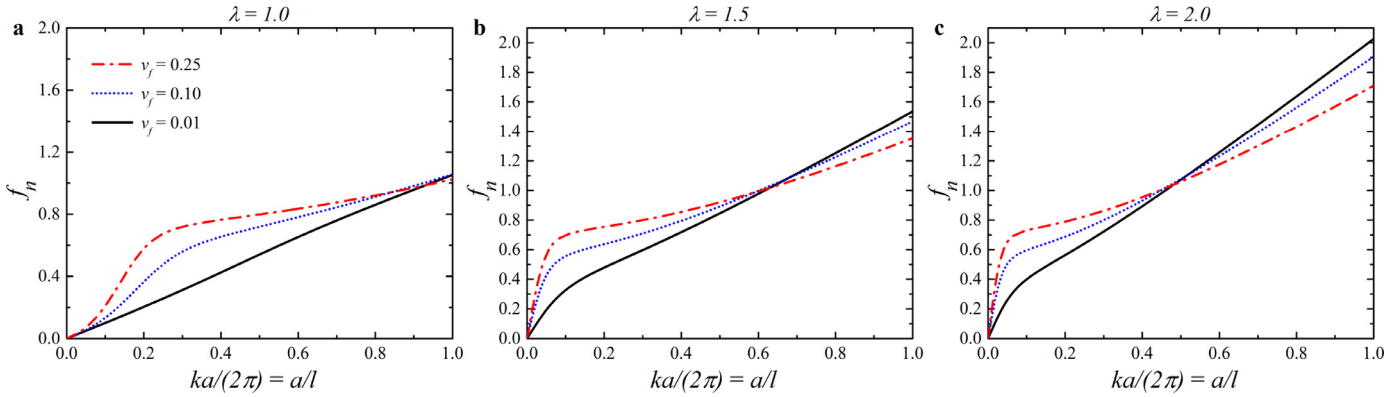


Fig. 3. Dispersion curves for shear waves propagating in the direction of fibers in FCs with $\mu_f/\mu_m = 1000$ in the undeformed state (a) and for the FCs subjected to the uniaxial tension of magnitude $\lambda = 1.5$ (b) and $\lambda = 2$ (c).

and deformed configurations are related via $\mathbf{K}^0 = \mathbf{F}^T \cdot \mathbf{k}$. Here, we present frequencies as functions of wavenumber k in the deformed configuration. Figs. 1–3 correspond to Figs. 7, 8 and 9, respectively, in the original paper (Galich et al., 2017). Thus, the conclusion in Galich et al. (2017) about the weak influence of the applied deformation on short shear waves (with wavelength $l \lesssim 2a$) needs to be corrected. As can be seen from Fig. 2, the applied uniaxial deformation influence shear waves in both long and short wave ranges. All other conclusions in Galich et al. (2017) agree with the dispersion curves presented in Figs. 1–3.

Reference

Galich, P.I., Slesarenko, V., Rudykh, S., 2017. Shear wave propagation in finitely deformed 3D fiber-reinforced composites. Int. J. Solids Struct. 110–111, 294–304.