

Corrigendum

J M Muggleton & Jin Yan

Wavenumber prediction and measurement for buried fluid-filled pipes: inclusion of shear coupling at a lubricated pipe/soil interface

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It is with regret that we have noticed an error in Figures 4b and 5b, relating to the shell-dominated, $s=2$ wave, and consequently in the accompanying text in section 4.2. The figures should be as follows:

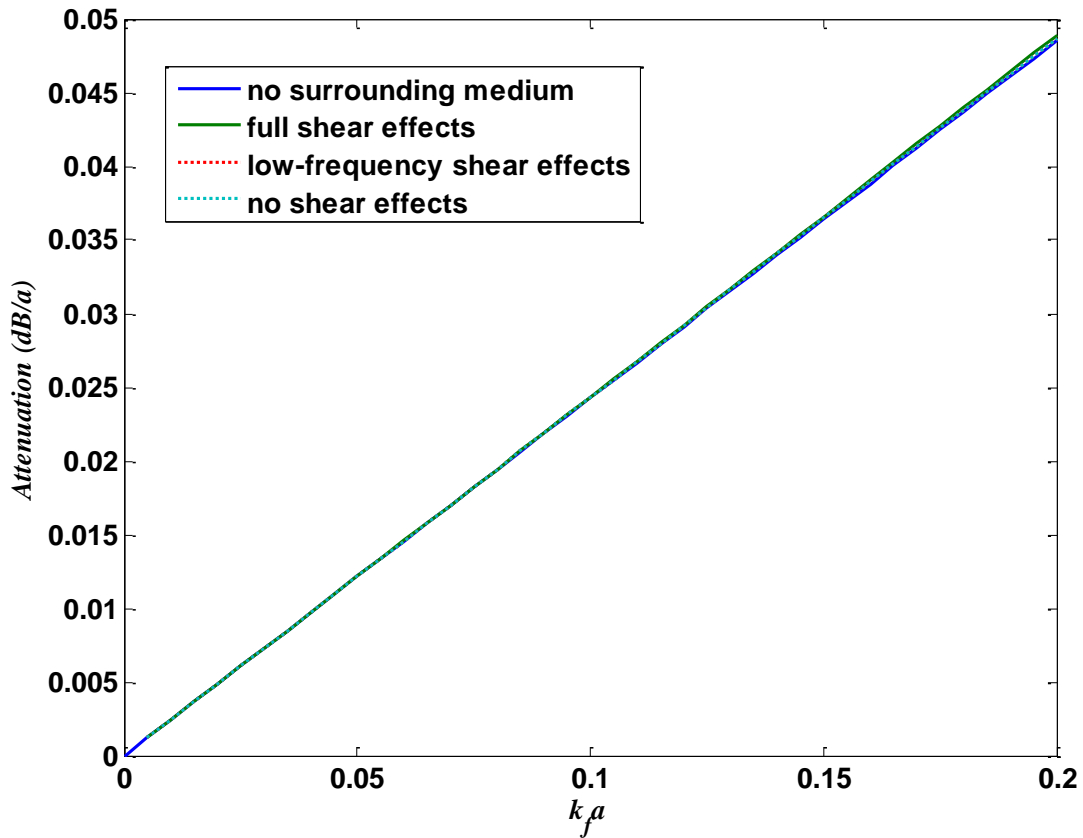


Figure 4b
Imaginary part of $s=2$ wavenumber, soil A

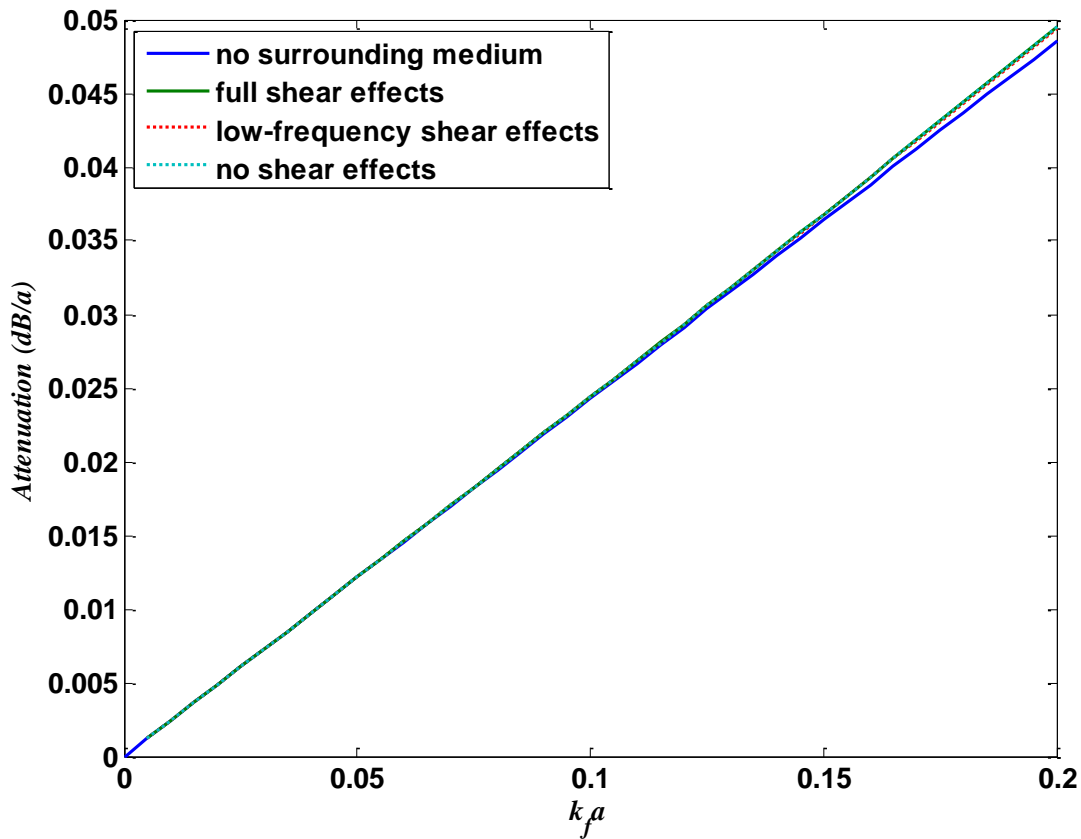


Figure 5b
Imaginary part of $s=2$ wavenumber, soil B

Section 4.2 should now be replaced with the following:

Fig. 4(a) shows the real part of the $s=2$ wavenumber for soil A. There is no discernible difference between the 'no surrounding medium' case and the other cases for which a surrounding medium is present. This is as expected given the stiffness of the contained fluid is large compared with both the pipe wall stiffness and the shear stiffness of the surrounding medium. Examination of Fig. 4(b) depicting the attenuation shows that the effect of the surrounding medium is negligible, although a very small increase can be discerned. This difference is present whether or not the shear effects are included, suggesting that the radiation is largely due to the compressional wave and not as a result of shear coupling.

Fig. 5(a) and (b) depicts the results for soil B. Again the real part of the wavenumber is unaffected by the presence of the soil. Here, the increased attenuation due to the surrounding soil is slightly more marked but it is nevertheless extremely small; again this is due to the compressional wave rather than shear.

Regarding the $s=2$ wave, the conclusions should now read:

The wavespeed of the $s=2$ wave is largely unaffected by either the contained fluid or the surrounding medium. The attenuation is increased slightly due to the presence of a surrounding medium but this is not a consequence of the shear coupling.