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Corrigendum to: Calculation of ground vibration spectra from heavy military vehicles (Journal of Sound and Vibration (2010) 329 (3020-3029))

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Corrigendum: "Calculation of ground vibration spectra from heavy military vehicles" [Journal of Sound and Vibration, 329, 3020–3029 (2010)]

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In the above-mentioned paper, the vertical variation in track surface profile $z_r(x)$ has been modelled as a finite series of positive half sine pulses with a spatial periodicity equal to the track periodicity a . In the initial version of the paper, it was assumed that the width of each positive half sine pulse was equal to $a/2$, which is reflected in the equation (1) of the paper for the time-dependent elevation of the wheel traversing over the track $z_r(t)$:

$$z_r(t) = \begin{cases} z_{r_{\max}} \sin(2\pi f_{tr} t) & \text{for } z_r(t) \geq 0 \\ 0 & \text{otherwise} \end{cases} \quad (1)$$

Here f_{tr} is the so-called track frequency that is defined as the ratio of the vehicle forward velocity V to the track pitch a : $f_{tr}=V/a$. However, in the final version of the paper, the width of each individual positive sine pulse has been increased to a , keeping the same periodicity a . All calculations in the final version of the paper have been carried out for this new surface profile with individual sine pulses having the width a . Unfortunately, the equation (1) for the time-dependent elevation $z_r(t)$ has not been updated in the published paper, which may cause confusion.

In the light of the above, equation (1) of the paper for the time-dependent elevation of the wheel $z_r(t)$ should be replaced with the following corrected equation reflecting the fact that the width of each positive sine pulse has been increased to a :

$$z_r(t) = z_{r_{\max}} |\sin(\pi f_{tr} t)|, \quad (1')$$

where two vertical lines mean 'absolute value'.

All subsequent derivations, calculations and conclusions of the paper remain unchanged.

We are grateful to Professor J. Altmann for drawing our attention to the above-mentioned error.

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