Erratum: Propagation of guided waves through weak penetrable scatterers [J. Acoust. Soc. Am. 131(3), 1874–1889 (2012)]

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The print version and the version online of this article contain typing errors.
Equation (6) on page 1876 should be

$$\begin{cases} k_n^2 \equiv k^2 - \left(\frac{n\pi}{H}\right)^2, \\ C_{nm}(x) \equiv \int_{a(x)}^{b(x)} dy\, \psi_m(y)\psi_n(y) = \frac{\alpha_{nm}}{2}\left[Y\,\mathrm{sinc}\frac{(n-m)\pi Y}{H} + Y\,\mathrm{sinc}\frac{(n+m)\pi Y}{H}\right]_{Y=a(x)}^{Y=b(x)}, \\ D_{nm}(x) \equiv \int_{a(x)}^{b(x)} dy\, \psi'_m(y)\psi'_n(y) = nm\frac{\pi^2}{H^2}\left[Y\,\mathrm{sinc}\frac{(n-m)\pi Y}{H} - Y\,\mathrm{sinc}\frac{(n+m)\pi Y}{H}\right]_{Y=a(x)}^{Y=b(x)}. \end{cases}$$

Equation (13) on page 1878 should be

$$\begin{cases} p_n^1(x_s < x < 0) = e^{ik_N x}\delta_{nN} + R_{nN}e^{-ik_n x}, \\ p_n^1(x > L) = T_{nN}e^{ik_n x}. \end{cases}$$

In Eq. (14) on page 1878, T_{nN} should be

$$T_{nN} = \delta_{nN} + \frac{(\rho/\tilde{\rho} - 1)}{2ik_nH}[k_nk_N\hat{C}_{nN}(k_N - k_n) + \hat{D}_{nN}(k_N - k_n)] - \frac{k^2(B/\tilde{B} - 1)}{2ik_nH}\hat{C}_{nN}(k_N - k_n).$$

In Eq. (15) on page 1878, D_{nN} should be

$$D_{nN}(x) = 2k_nd_{nN}\,\epsilon(x) + O(\epsilon^2), \quad d_{nN} \equiv 2nN\frac{\pi^2}{k_nH}\sin\frac{n\pi y_0}{H}\sin\frac{N\pi y_0}{H}.$$

On page 1879, the figure caption refers erroneously to Eq. (12) instead of Eq. (14): "dashed line in the first Born approximation [Eq. (14)]."

Equation (28) on page 1883 should be

$$\begin{cases} T_{nN}^{perio} = \delta_{nN} + +i\left[-(\rho/\tilde{\rho} - 1)(Sd_{nN} + Sc_{nN}) + k^2/(k_nk_N)(B/\tilde{B} - 1)Sc_{nN}\right]\frac{1 - e^{i(k_N - k_n)L}}{1 - e^{i(k_N - k_n)l}}I_{\mathcal{C}x0}(k_N - k_n), \\ R_{nN}^{perio} = i\left[-(\rho/\tilde{\rho} - 1)(Sd_{nN} - Sc_{nN}) + k^2/(k_nk_N)(B/\tilde{B} - 1)Sc_{nN}\right]\frac{1 - e^{i(k_N + k_n)L}}{1 - e^{i(k_N + k_n)l}}I_{\mathcal{C}x0}(k_N + k_n). \end{cases}$$

In Eq. (30) on page 1883, R_{n0}^{perio} should be

$$R_{n0}^{perio} = i\alpha_{n0}\frac{kS}{2H}[(\rho/\tilde{\rho} - 1) + k/k_n(B/\tilde{B} - 1)]\cos\frac{n\pi}{2}\mathcal{S}((k + k_n)R).$$

On page 1883, the figure caption of Fig. 8 refers erroneously to the equations. It should read:

FIG. 8. Scattering by a periodic set of scatterers $[x_{0p}/H = (2, 2.5, 3),\ y_{0m}/H = (0.25, 0.75)]$ for the Mode 1 incident ($k = 5.56$, $R = 0.05$, $c/\tilde{c} = 0.9$, $\rho = \tilde{\rho}$). (a) Scattered field p_M^s, on the bottom p_B^s using Eq. (28). The error is $Er_B = 6\%$. (b) $p_n(x)$ for $n = 0, \ldots, 6$, plain lines correspond to the results obtained with the MELINA code, dashed dotted line to the solution using Eq. (28). Only odd modes are expected to be non vanishing from Eq. (25).

On page 1884, the figure caption of Fig. 10 refers to Eq. (4.7) instead of Eq. (30).

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