Errata

Refined Engineering Beam Theory Based on the Asymptotic Expansion Approach

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THE following changes should be made to certain equations in this paper:

Page 445:
The first term of Eq. (3a) should be lower case:

$$x_\alpha = y_\alpha/R, \qquad x_3 = y_3/L \tag{3a}$$

The first term of Eq. (4c) should be preceded by $(1 + \nu)$:

$$(1 + \nu)\tau_{3\alpha} = \tfrac{1}{2}[v_{\alpha,3} + (1/\epsilon)v_{3,\alpha}] \tag{4c}$$

Page 446:
The first term of the right-hand sides of Eqs. (14a) and (14b) should be $-U_{,3}$:

$$\varphi_1 = \frac{v_{3,1}(0,0,x_3)}{\epsilon} = -U_{,3}(x_3) + \epsilon^2\chi_{,1}(0,0)\frac{Q}{I} \tag{14a}$$

$$\varphi_2 = \frac{1}{\epsilon I}\int_S x_1 v_3 \mathrm{d}A = -U_{,3}(x_3) + \epsilon^2\frac{\int_S x_1\chi \mathrm{d}A}{I}Q \tag{14b}$$

The third integral in Eq. (18a) is missing a subscript 3 and should read

$$\int_S \tau^{(0)}_{\alpha\alpha}\mathrm{d}A = \int_{\partial S} x_\alpha \tau^{(0)}_{\alpha\beta} n_\beta \mathrm{d}s - \int_S x_\alpha \tau^{(0)}_{3\alpha,3}\mathrm{d}A \tag{18a}$$

The integral in Eq. (19a) should be preceded by ν:

$$N = \epsilon^2\left[AW_{,3}(x_3) - l_a\frac{p}{I} + \nu\int_{\partial S} x_\alpha \bar{t}_\alpha \mathrm{d}s\right] \tag{19a}$$

Page 447:
The last term in Eq. (22), k, should be k_a:

$$IU_{,33}(x_3^0) = -M(x_3^0) + \epsilon^2\left[\nu\int_{\partial S}(x_1 x_\alpha \bar{t}_\alpha - \tfrac{1}{2}x_\alpha x_\alpha \bar{t}_1)\mathrm{d}S + \frac{p}{I}k_a\right] \tag{22}$$

Page 448:
The term $3x_1x_2^3$ in Eq. (A3) should be $3x_1x_2^2$:

$$\chi = -(\tfrac{3}{4} + \nu/2)a^2x_1 + \tfrac{1}{4}(x_1^3 - 3x_1x_2^2) + x_1x_2^2 \tag{A3}$$

The first term in Eq. (B6), $U^d(y_3)$, should be $U^d(x_3)$. The $\left(\frac{r}{I}\right)$ should be $\left(\frac{r}{l}\right)$:

$$U^d(x_3) = \frac{p^d}{24EI^d}y_3^4 + \frac{p^d}{2EI^d}l^2y_3^2\left[-\tfrac{1}{2} + \left(\frac{r}{l}\right)^2\left(\frac{\nu}{2} + \frac{k_a}{I}\right)\right] + \frac{p^d}{EI^d}l^4\left[\frac{5}{24} - \tfrac{1}{2}\left(\frac{r}{l}\right)^2\left(\frac{\nu}{2} + \frac{k_a}{I}\right)\right] \tag{B6}$$

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Passive-Pressure Drag Control in a Plane Wake

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FIGURES 8 and 9 were inadvertently transposed in this paper.