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Correction: Analysis of unstable modes distinguishes mathematical models of flagellar motion

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The original paper, as published, requires correction of two equations and two figure captions. The correct expressions, given below, were used to generate the results in the published paper.

1. Equation (3.23(ii))

The equation for this boundary condition was misprinted; it should be:

$$\tilde{\psi}'''(0) - \frac{\bar{\delta}}{1 + \eta\bar{\sigma}} \tilde{\psi}''(0) = 0. \quad (3.23(ii))$$

2. Equation (4.8)

The first two rows of the representative column of the 4×4 matrix are incorrect as published. The correct matrix, consistent with equation (3.23(i)–(iv)) and used to generate the published results, is given below:

$$\begin{bmatrix} \dots & 1 & \dots \\ \dots & \beta_n^3 - \frac{\bar{\delta}}{1 + \eta\bar{\sigma}} \beta_n^2 & \dots \\ \dots & \beta_n e^{\beta_n} & \dots \\ \dots & \beta_n^2 e^{\beta_n} - \frac{\bar{\delta}}{1 + \eta\bar{\sigma}} \beta_n e^{\beta_n} & \dots \end{bmatrix} \begin{Bmatrix} A_1 \\ A_2 \\ A_3 \\ A_4 \end{Bmatrix} = \begin{Bmatrix} 0 \\ 0 \\ 0 \\ 0 \end{Bmatrix}, \quad n = 1, 2, 3, 4. \quad (4.8)$$

3. Figures 2 and 8

Characteristic exponents (eigenvalues) were located by finding the zeros of the determinant $D(\bar{\sigma})$ of the matrix, $\mathbf{M}(\bar{\sigma})$ (the matrix on l.h.s. of equation (4.8)). The rows of \mathbf{M} and the amplitude of $D(\bar{\sigma})$ may be scaled without affecting the zeros of $D(\bar{\sigma})$. In generating figures, the first two rows of \mathbf{M} were multiplied by 100 to obtain $\tilde{\mathbf{M}}$, and the determinant was divided by the matrix 2-norm: $\tilde{D}(\bar{\sigma}) = \det \tilde{\mathbf{M}}(\bar{\sigma}) / \|\tilde{\mathbf{M}}\|_2$. The captions of two figures omitted these scaling operations. In the corrected versions below, $D(\sigma)$ is replaced by $\tilde{D}(\sigma)$.

Figure 2. (a,b) ... Images of the log magnitude of the normalized determinant, $\ln |\tilde{D}(\sigma)|$, are shown as a function of $\sigma = \alpha + i\omega$ Eigenvalues (characteristic exponents) are found at local minima of $|\tilde{D}(\sigma)|$.

Figure 8. (a,c) ... Images of the log magnitude of the normalized determinant, $\ln |\tilde{D}(\sigma)|$ Eigenvalues (characteristic exponents) are found at local minima of $|\tilde{D}(\sigma)|$.