Erratum: Odd elasticity and topological waves in active surfaces [Phys. Rev. E 109, 024608 (2024)]

Michele Fossati, Colin Scheibner, Michel Fruchart, and Vincenzo Vitelli

(Received 11 April 2024; published 2 May 2024)

DOI: 10.1103/PhysRevE.109.059901

Equation (24) of our original paper should read

$$D_{\text{eff}} = \frac{h^2}{12}(B + \mu_1), \tag{24}$$

and should not involve the odd elastic moduli K_1^o and K_2^o. Our broader conclusion remains valid: the presence of the odd elastic moduli do not affect the functional form of Eq. (23), which governs the out of plane dynamics of the surface in the zero thickness ($h \to 0$) limit. The rest of the paper is unaffected.

The error arises when inverting the matrix equation (D14) to get Eq. (D15), in the Appendix. Equation (D15) should read

$$\partial_\alpha w^{(2)} + \phi_\alpha^{(2)} = -\frac{B\mu_2\partial_\alpha\partial_\beta - K_2^o B\epsilon_{\alpha\gamma}\partial_\gamma\partial_\beta + \left(\mu_1\mu_2 + K_1^o K_2^o\right)\delta_{\alpha\beta}\nabla^2 + \left(\mu_2 K_1^o - K_2^o\mu_1\right)\nabla^2\epsilon_{\alpha\beta}}{12\left[\mu_2^2 + \left(K_2^o\right)^2\right]}\partial_\beta w^{(0)}, \tag{D15}$$

and therefore Eq. (D17) should read

$$D_t w^{(2)} = -\frac{B + \mu_1}{12}\nabla^4 w. \tag{D17}$$

Finally, Eq. (D19) should read

$$D_{\text{eff}} = h^2(B + \mu_1)/12. \tag{D19}$$

We thank Dr. Nicolas Romeo for bringing this to our attention.

