CORRECTION

Correction to: The delamination of a growing elastic sheet with adhesion

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1 Correction to: Meccanica (2017) 52:3481–3487 <https://doi.org/10.1007/s11012-017-0618-0>

We have found two mistakes in Eqs. (13) and (14) of Ref. [1], which we wish to correct. We note that these errors did not produce significant effects on the subsequent numerical analysis, because the corrective term only introduces a negligible contribution to the solution in the region of interest of the parameters.

The error in Eq. (13) is simply a misprint and does not affect the rest of the paper. The correct version of Eq. (13) is

$$\left(w_f - w_a - \frac{\partial w_f}{\partial \theta'} \theta' \right) \delta \bar{S} = 0. \quad (1)$$

Since this equation is requested to vanish for any $\delta \bar{S}$, with the use of Eqs. (5) of Ref. [1], we obtain

$$-k[\theta'(\bar{S})]^2 + b[(\lambda^- - 1)^2 - (\lambda^+ - 1)^2] + 2\mu(\lambda^+ - \lambda^-) + 2w\lambda^+ = 0 \quad (2)$$

where $\lambda^- = 1 + \mu/b$ and $\lambda^+ = \bar{\lambda}$. Furthermore, Eq. (12) of Ref. [1] leads to $\mu = b(\bar{\lambda} - 1) - w$, which inserted into (2) yields the correct version of Eq. (14)

$$-k[\theta'(\bar{S})]^2 + 2\bar{\lambda}w - \frac{w^2}{b} = 0. \quad (3)$$

This can be further simplified using the elasto-capillary length ℓ_{ec} so that (3) rewrites as

$$-k[\theta'(\bar{S})]^2 + 2\bar{\lambda}w - w \frac{\ell^2}{\ell_{ec}^2} = 0. \quad (4)$$

In §3 of Ref. [1] we studied the case $\ell^2/\ell_{ec}^2 \simeq 1.37 \times 10^{-5}$, so that the corrective term contribution is negligible. We are grateful to Jun Zhong for his remarks.

The original article can be found online at <https://doi.org/10.1007/s11012-017-0618-0>.

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1. Napoli G, Turzi S (2017) The delamination of a growing elastic sheet with adhesion. *Meccanica* 52(14):3481–3487

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