NN-EUCLID: deep-learning hyperelasticity without stress data

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Corrections to the original article

The original article (Thakolkaran et al., 2022) published by the authors contain the following typographical mistake.

Equation 28 in the original article:

$$W(\boldsymbol{F}) = \frac{\mu}{\eta}(\lambda_1^\eta + \lambda_2^\eta + \lambda_3^\eta - 3)$$

should be corrected to:

$$\mathrm{OG}_i(\tilde{I}_1, J) = \frac{\mu}{\eta}\left(\tilde{\lambda}_1^\eta + \tilde{\lambda}_2^\eta + \tilde{\lambda}_3^\eta - 3\right) + 1.5(J-1)^2 \qquad \text{with} \qquad \tilde{\lambda}_k = J^{-1/3}\lambda_k,\ k = 1, 2, 3,$$

References

Thakolkaran, P., Joshi, A., Zheng, Y., Flaschel, M., De Lorenzis, L., Kumar, S., 2022. NN-EUCLID: Deep-learning hyperelasticity without stress data. Journal of the Mechanics and Physics of Solids 169, 105076. URL: http://dx.doi.org/10.1016/j.jmps.2022.105076, doi:10.1016/j.jmps.2022.105076.

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