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Correction: A neural network-based algorithm for high-throughput characterisation of viscoelastic properties of flowing microcapsules

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Correction for 'A neural network-based algorithm for high-throughput characterisation of viscoelastic properties of flowing microcapsules' by Tao Lin *et al.*, *Soft Matter*, 2021, DOI: 10.1039/d0sm02121k.

The authors wish to include a citation to 'A high-throughput method to characterize membrane viscosity of flowing microcapsules' by Tao Lin *et al.*, *Physics of Fluids*, 2021, DOI: 10.1063/5.0031640.¹ They also wish to provide the following clarification for readers:

The work reported in the original article in *Soft Matter* was carried out in parallel to our recent work in *Physics of Fluids (POF)*. Two different types of neural-network algorithms are reported in the two works that make predictions with different mechanisms. The *POF* article is based on a convolutional neural network (CNN), while the *Soft Matter* article combines parts of a CNN with a long short-term memory network (*i.e.*, a hybrid model). A significant advantage/advance of the hybrid model is that it deals with individual instantaneous images of the capsule and builds their temporal connections. It can therefore be much more accurate. However, the CNN (in the *POF* work) has a merit of being simple.

When analysing the performance of the two methods, similar procedures were followed, and some data of capsule profiles for training and testing the networks were shared. Therefore, some similarities can be seen in the figures of the two papers. In Fig. 3 in the *Soft Matter* paper and Fig. 5 of the *POF* paper, and also Fig. 4 of the *Soft Matter* paper and Fig. 6 of the *POF* paper, the results regarding performance of the two networks are different by 2–6%. However, these procedures and capsule data are not the main points/results of the papers.

The Royal Society of Chemistry apologises for these errors and any consequent inconvenience to authors and readers.

References

- 1 T. Lin, Z. Wang, R. Lu, W. Wang and Y. Sui, *Phys. Fluids*, 2021, **33**, 011906, DOI: 10.1063/5.0031640.

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