Instability of pressure-driven gas/liquid two-layer channel flows in two and three dimensions CORRIGENDUM

Lennon Ó Náraigh† and Peter D. M. Spelt

School of Mathematics and Statistics, University College Dublin, Belfield, Dublin 4, Ireland
Laboratoire de Mécanique des Fluides et d'Acoustique (LMFA), Université de Lyon, France

(Received xx; revised xx; accepted xx)

Some errors have been noticed in Ó Náraigh & Spelt (2018) after publication. These are all typographical and have no effect on the results. Editorial policy of the journal does not enable us to publish a corrigendum in the journal, given the minor significance of the errors. We therefore correct these errors in this informal note.

In the Appendix A, equation (A 7*d*) contains several errors. In the first term on the left-hand side, the derivative of $\tilde{w}_L$ should have been taken. Furthermore, derivatives of $\tilde{w}_L$ and $\tilde{w}_G$ should be taken in the terms of the form $3k^2\tilde{w}$. Also, a factor $r-1$ is missing in the gravity term, and the gravity-surface-tension-term should be multiplied overall by i. The corrected equation is

$$\begin{aligned}\mathrm{i}\alpha r\mathrm{Re}\left[\widetilde{w}_L'\left(c-U_L\right)+\widetilde{w}_L U_L'\right]+m\left(\widetilde{w}_L'''-3k^2\widetilde{w}_L'\right)&\\ =\mathrm{i}\alpha\mathrm{Re}\left[\widetilde{w}_G'\left(c-U_G\right)+\widetilde{w}_G U_G'\right]+\left(\widetilde{w}_G'''-3k^2\widetilde{w}_G'\right)&\\ +\frac{\mathrm{i}k^2}{\alpha}\left(\mathcal{G}(r-1)+\frac{k^2}{\mathrm{We}}\right)\left[\frac{\widetilde{w}_G'-\widetilde{w}_L'}{(U_L'-U_G')}\right]&=0.\end{aligned}$$

REFERENCES

Ó Náraigh, L. & Spelt, P. D. M. 2018 Instability of pressure-driven gas/liquid two-layer channel flows in two and three dimensions. *J. Fluid Mech.* **849**, 1 – 34.

† Email address for correspondence: onaraigh@maths.ucd.ie