Erratum

Erratum to: Numerical solutions of thin-film equations for polymer flows

Thomas Salez[1,a], Joshua D. McGraw[2], Sara L. Cormier[2], Oliver Bäumchen[2], Kari Dalnoki-Veress[2], and Elie Raphaël[1]

[1] Laboratoire de Physico-Chimie Théorique, UMR CNRS Gulliver 7083, ESPCI, Paris, France
[2] Department of Physics & Astronomy and the Brockhouse Institute for Materials Research, McMaster University, Hamilton, Canada

Equation (36h) must be replaced by

$$\partial_T \mathcal{H}_3 = \frac{8}{3} \frac{\mathcal{A}_3 \mathcal{H}_{\bar{R}R\bar{R},3} - \mathcal{A}_4 \mathcal{H}_{\bar{R}R\bar{R},4}}{\Delta R} \,,$$

which corresponds to the limit of eq. (28) when $R \to 0$.

Note that the 4/3 factor between the two expressions applies on a single point of the grid, the others being described by the full eq. (33). We have verified that this error is insignificant up to a typical 10^{-4} relative error on the output profiles, with the chosen spatial increment ($\Delta R = 0.01$) reported in table 2. The results and figures of the article are thus unchanged.

However, the missing 4/3 factor may lead to larger discrepancies for a coarser grid.

We take advantage of this *Erratum* to mention also that the conditions of eqs. (36a), (36d) and (36e) are not needed in the algorithm.

[a] e-mail: thomas.salez@espci.fr