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Corrigendum

Erratum to “Lattice Boltzmann modeling for multiphase viscoplastic fluid flow”

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There was a typo in the original paper [1] for the expression of shear rate $\dot{\gamma}$ in Eq. (14) on page 120,

$$\dot{\gamma} = (S_{\alpha\beta} S_{\alpha\beta})^{1/2} = \frac{3}{2\rho\tau_f c^2} \left(\sum_i f_i^{(1)} c_{i\alpha} c_{i\beta} \right)^{1/2}. \quad (14)$$

which should be revised as

$$\dot{\gamma} = (2|S_{\alpha\beta} S_{\beta\alpha}|)^{1/2}, \quad (14a)$$

with the shear rate tensor $S_{\alpha\beta}$ calculated as

$$S_{\alpha\beta} = \frac{3}{2\rho\tau_f c^2} \sum_i f_i^{(1)} c_{i\alpha} c_{i\beta}, \quad (14b)$$

where $f_i^{(1)}$ is first order component of f_i in the Chapman–Enskog expansion.

Reference

- [1] C. Xie, J. Zhang, V. Bertola, M. Wang, Lattice Boltzmann modeling for multiphase viscoplastic fluid flow, *J. Non-Newtonian Fluid Mech.* 234 (2016) 118–128.

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