Errata

Erratum: Nonlinear transport processes and fluid dynamics: Cylindrical Couette flow of Lennard-Jones fluids [Phys. Rev. A 38, 2492 (1988)]

R. E. Khayat and Byung Chan Eu

There are some unfortunate typographical or transcription errors in the paper. We would like to correct them. The errors do not affect the numerical results presented in the paper.

The last term in (2.3) should read $-\tilde{\mathbf{P}}:\tilde{\nabla}\tilde{\mathbf{u}}$.

The definitions of $\tilde{\gamma}$ and $\tilde{\omega}$ appearing in the bottom of the first column on p. 2493 should read

$$\tilde{\gamma} = -\frac{1}{2}[\tilde{\nabla}\tilde{\mathbf{u}} + (\tilde{\nabla}\tilde{\mathbf{u}})'] + \frac{1}{3}\tilde{\mathbf{U}}\tilde{\nabla}\cdot\tilde{\mathbf{u}},$$

$$\tilde{\omega} = \frac{1}{2}[\tilde{\nabla}\tilde{\mathbf{u}} - (\tilde{\nabla}\tilde{\mathbf{u}})'].$$

Equations (2.12a), (2.12b), (2.12d), and (2.12f) should read, respectively,

$$p\Pi_{rr}q_e/\eta_0 = -(8\gamma\Pi_{r\theta}/3 + 8\beta\Pi_{rz}/3), \quad (2.12a)$$

$$p\Pi_{r\theta}q_e/\eta_0 = -2p\gamma - (2\gamma\Pi_{\theta\theta} + 2\beta\Pi_{\theta z}), \quad (2.12b)$$

$$p\Pi_{rz}q_e/\eta_0 = -2p\beta - (2\gamma\Pi_{\theta z} + 2\beta\Pi_{zz}), \quad (2.12d)$$

$$p\Pi_{zz}q_e/\eta_0 = 4\gamma\Pi_{r\theta}/3 + 4\beta\Pi_{rz}/3. \quad (2.12f)$$

The numerical factor in the last term in Eq. (2.24a) should read $\frac{2}{3}$ instead of $\frac{4}{3}$. Since the transcription errors are in the terms that eventually vanish identically, the results of the paper are not affected.

The definition for κ^* in Eq. (2.30) is missing the factor $\frac{1}{2}$. It should read

$$\kappa^* = (\pi^{3/2}/\gamma_0)^{1/2} (T^{*1/4}/2\eta^{*1/2}p^*) [\Pi^{*2} + \epsilon(\eta^*/\lambda^*)Q^{*2}]^{1/2}.$$

The error was typographical and did not affect the numerical results.

The steady-state constitutive equations for the stress tensor and heat flux in (2.12a)–(2.13c) are presented with u_r set equal to zero in anticipation of the result in (2.16).

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Erratum: Generalized hydrodynamics, normal-stress effects, and velocity slips in the cylindrical Couette flow of Lennard-Jones fluids [Phys. Rev. A 39, 728 (1989)]

Roger E. Khayat and Byung Chan Eu

We would like to correct a few typographical errors. The results of the paper are not affected by the errors, however. The definition of $\tilde{\gamma}$ in p. 729 should read

$$\tilde{\gamma} = -\frac{1}{2}[\nabla\mathbf{u} + (\nabla\mathbf{u})'] + \frac{1}{3}\tilde{\mathbf{U}}\nabla\cdot\mathbf{u}.$$

The inequality below (2.32) in p. 733 should read

$$\Delta(\xi_i) < \Delta(\xi) \quad \text{for } \xi > \xi_i.$$

The steady-state constitutive equations for the stress tensor and heat flux in (2.10a)–(2.11c) are presented with u_r set equal to zero in anticipation of the result in (2.14).