



Erratum: “Adaptive Computations to Pressure Profile for Creeping Flow of a Non-Newtonian Fluid With Fluid Non-Constant Density Effects,” [ASME J. Heat Mass Transfer-Trans. ASME, 2022, 144(10), p. 103601; DOI: [10.1115/1.4055092](https://doi.org/10.1115/1.4055092)]

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There are some typesetting errors in the “Adaptive computations to pressure profile for creeping flow of a non-Newtonian fluid with fluid non-constant density effects,” which are proposed as follows:

- In Eq. (8), $\frac{\sigma B_0^2}{1+m^2} \cos(\gamma) (U' \cos(\beta\gamma) - V' \sin(\gamma)) - g\rho_f [\zeta(T' - T'_0) + \zeta^*(C' - C'_0)] + \rho(T', C')g\sin(\alpha)$, should be $\frac{\sigma B_0^2}{1+m^2} \cos(\gamma) (U' \cos(\gamma) - V' \sin(\gamma)) - g\rho_f [\zeta(T' - T'_0) + \zeta^*(C' - C'_0)] + \rho(T', C')g\sin(\epsilon)$, it is like in the work by Hussain and Farooq [1], they studied the Gyrotactic micro-organisms swimming of peristaltic flow in esophagus.
- The non-dimensional quantities $N_b = \frac{\tau D_b C'_0}{\nu}$, $N_t = \frac{\tau D_b T'_0}{\nu}$, which are defined as in the recent published works in Refs. [2–4].
- The definition of fluid density in the paper in Ref. [5], which is the same as presented in Eq. (3) by Ref. [6], and the authors state that according to the Boussinesq approximation, this dependence of the density is taken into account only within the buoyancy term. The sign of β indicates whether the colloidal particles have a higher or a lower mass density compared to the solvent. Here, we assume $\beta > 0$ corresponding to $\epsilon < 1$.
- The dimensionless of some parameters are missing in the paper [5], like $P = \frac{d_1^2}{c\lambda\eta_0} p$, $\eta = \frac{\rho_f d_1^2 K}{\mu_0}$, $E_c = \frac{c^2}{c_j(T_1 - T_0)}$, which is the same in Refs. [6–10].

References

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