Continuum Mech. Thermodyn. (2023) 35:343–345
https://doi.org/10.1007/s00161-022-01165-w

CORRECTION

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Correction to: Second-order constitutive theory of fluids

Published online: 2 November 2022

Correction to: Continuum Mech. Thermodyn. (2022) 34:185–215
https://doi.org/10.1007/s00161-021-01053-9

Due to typographical errors and carelessness on the part of the author, a number of errors appear in the original manuscript. Below, we correct them. While the corrections do alter some of the equations, they do not alter any of the major results or conclusions reached by the work.

In Eq. (26), the term within parentheses in the 4th line should read $A^{(2)}_{jk} - A^{(1)}_{jl}A^{(1)}_{lk} - 2\,\overline{A^{(1)}_{jl}W_{lk}}$, and in Eq. (38), the 4th term on the 3rd line should be $2\,\rho\,\psi_{,A^{(1)}_{jk}}A^{(1)}_{ik}$.

In Eq. (53), the 5th term should be $\beta^{(4)}r_k g_k$, and in the sentence following the equation "$\beta^{(7)} = \beta^{(7)}(\theta)$ and $\beta^{(10)} = \beta^{(10)}(\theta)$" should be replaced by "$\rho\,\beta^{(7)}$ and $\rho\,\beta^{(10)}$ are functions of θ."

Within the parentheses of the second term in the last line of Eq. (55) it should read "$H_{kll} + H_{llk}$," and in the last sentence of the paragraph following the equation replace "$\nu^{(13)} = \nu^{(13)}(\theta)$, $\nu^{(17)} = \nu^{(17)}(\theta)$ and $\nu^{(26)} = \nu^{(26)}(\theta)$" by "$\rho\,\nu^{(13)}$, $\rho\,\nu^{(17)}$ and $\rho\,\nu^{(26)}$ are functions of θ.

In the last sentence of the paragraph following Eq. (57), replace "$\kappa^{(2)}$ and $\kappa^{(11)}$ are linear in density, $\kappa^{(14)}$ is quadratic in density" with "$\kappa^{(2)} = \kappa^{(2)}(\theta)$, $\kappa^{(11)} = \kappa^{(11)}(\theta)$, $\kappa^{(14)}$ is linear in density."

In the last sentence of the paragraph following Eq. (59), replace "$\gamma^{(3)} = \gamma^{(3)}(\theta)$, and $\gamma^{(13)}$ and $\gamma^{(18)}$ are linear functions of density" with "$\gamma^{(3)}$, $\gamma^{(13)}$ and $\gamma^{(18)}$ are functions of θ."

In Table 3, in the entry for $\gamma^{(3)}$ replace "$\xi^{(1)}_{,\theta}$" by "$\kappa^{(3)}_{,\theta}$," in the entry for $\gamma^{(12)}$ replace "$-\rho\,(\beta^{(8)}_{,\theta}+\nu^{(8)})+\kappa^{(7)}_{,\theta}$" by "$-\rho\,\nu^{(8)}$", and in the 3rd term of the entry for $\gamma^{(20)}$ replace "$(\kappa^{(12)}_{,\theta} + \kappa^{(13)}_{,\theta})$" by "$(\kappa^{(12)}_{,\theta} - \kappa^{(13)}_{,\theta})$."

In Table 4, in the entry for $\epsilon^{(12)}$ replace "$-\rho\,\theta\,(\beta^{(8)}_{,\theta} + \nu^{(8)}) + \theta^2\widetilde{\kappa}^{(7)}_{,\theta}$" by "$-\rho\,\theta\,\nu^{(8)}$", and in the 3rd term of the entry for $\epsilon^{(20)}$ replace "$(\widetilde{\kappa}^{(12)}_{,\theta} + \widetilde{\kappa}^{(13)}_{,\theta})$" by "$(\widetilde{\kappa}^{(12)}_{,\theta} - \widetilde{\kappa}^{(13)}_{,\theta})$."

In the last sentence of the paragraph following Table 4, replace "$\epsilon^{(3)} = \epsilon^{(3)}(\theta)$, and $\epsilon^{(13)}$ and $\epsilon^{(18)}$ are linear functions of density" with "$\epsilon^{(3)}$, $\epsilon^{(13)}$ and $\epsilon^{(18)}$ are functions of θ."

The original article can be found online at https://doi.org/10.1007/s00161-021-01053-9.

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Equation (64) should be replaced by

$$p = p^{(0)} + \rho^2 \left[\frac{1}{2}\,\beta^{(1)}_{,\rho}\dot{\theta}^2 + \frac{1}{2}\,\beta^{(2)}_{,\rho} r_k r_k + \frac{1}{2}\,\beta^{(3)}_{,\rho} g_k g_k + \beta^{(4)}_{,\rho} r_k g_k + \beta^{(5)}_{,\rho} R_{kk} + \beta^{(6)}_{,\rho} G_{kk} \right.$$
$$+ \beta^{(7)}_{,\rho} \left(\dot{\theta}\, r_k\right)_{,k} + \beta^{(8)}_{,\rho} \left(\dot{\theta}\, g_k\right)_{,k} + \beta^{(9)}_{,\rho}\dot{\theta}\, A^{(1)}_{kk} + \beta^{(10)}_{,\rho} \left(G_{kl}G_{kl} - G^2_{kk}\right)$$
$$\left. + \frac{1}{2}\,\beta^{(11)}_{,\rho} A^{(1)2}_{kk} + \beta^{(12)}_{,\rho} A^{(1)}_{kl} A^{(1)}_{kl} \right].$$

Next to the last line of Eq. (67), the coefficient of $\alpha^{(36)}$ in the second term should be $\frac{1}{3}$ and not $\frac{1}{6}$.

In Eqs. (69) and (70), remove $\frac{1}{2}$ as coefficients of the last terms on the 4th lines, and in Eq. (70), also on the 4th line, replace the coefficient $\frac{1}{3}$ of $\alpha^{(36)}$ by $\frac{2}{3}$.

On the last line of the paragraph following Eq. (71), replace "since $\beta^{(10)} = \beta^{(10)}(\theta)$, the parameter $\alpha^{(32)}$ is a linear function of ρ" with "since $\rho\,\beta^{(7)}$ and $\rho\,\beta^{(10)}$ are functions of θ, the parameters $\alpha^{(8)}$ and $\alpha^{(32)}$ are also functions of θ."

In Table 5, in the entry for $\alpha^{(5)}$ the sign preceding $\xi^{(2)}$ should be "+" and not "−," and in the entries for $\alpha^{(34)}$ and $\alpha^{(35)}$ the respective coefficients of $\beta^{(9)}$ and $\beta^{(11)}$ should be "2."

Below Eq. (74) change $\nu = -\partial\eta/\partial\dot{\theta}$ to $\nu = -\nu^{(1)}$.

In Eq. (80), in the last term of the first line change "$k^{(3)}$" to "$k^{(2)}$."

In Eqs. (91) and (92) change the signs within parentheses of the first terms from "−" to "+."

In Eq. (102), the 3rd term inside the brackets should read "$\rho^2\theta\,\widetilde{\beta}^{(2)}_{,\theta} r_k g_k$."

In Eq. (111), change "$\frac{h_i}{\rho\,\theta(R\,\theta)^{3/2}}$" to "$\frac{\theta\,h_i}{\rho(R\,\theta)^{3/2}}$."

In Eq. (114), next to the last line, change "$H_{kll} + 2\,H_{llk}$" to "$H_{kll} + H_{llk}$," and in Eq. (118), next to the last line, delete the coefficient of $\frac{1}{2}$ in front of $\alpha^{(36)}$.

Equation (119) should be corrected to read

$$p = p^{(0)} + \frac{1}{2}\,\beta^{(1)}_{,\rho}\frac{\mu^2}{\rho\,R\,\theta^3}\,\dot{\theta}^2 + \frac{1}{2}\,\beta^{(2)}_{,\rho}\frac{\mu^2}{\rho^3}\,r_k r_k + \frac{1}{2}\,\beta^{(3)}_{,\rho}\frac{\mu^2}{\rho\,\theta^2}\,g_k g_k + \beta^{(4)}_{,\rho}\frac{\mu^2}{\rho^2\theta}\,r_k g_k$$
$$+ \beta^{(5)}_{,\rho}\frac{\mu^2}{\rho^2}\,R_{kk} + \beta^{(6)}_{,\rho}\frac{\mu^2}{\rho\,\theta}\,G_{kk} + \beta^{(7)}_{,\rho}\frac{\mu^3}{\rho^3 R\,\theta^2}\,\left(\dot{\theta}\,r_k\right)_{,k} + \beta^{(8)}_{,\rho}\frac{\mu^3}{\rho^2 R\,\theta^3}\,\left(\dot{\theta}\,g_k\right)_{,k}$$
$$+ \beta^{(9)}_{,\rho}\frac{\mu^2}{\rho\,R\,\theta^2}\,\dot{\theta}\,A^{(1)}_{kk} + \beta^{(10)}_{,\rho}\frac{\mu^4}{\rho^3 R\,\theta^3}\left(G_{kl}G_{kl} - G^2_{kk}\right) + \frac{1}{2}\,\beta^{(11)}_{,\rho}\frac{\mu^2}{\rho\,R\,\theta}\,A^{(1)2}_{kk}$$
$$+ \beta^{(12)}_{,\rho}\frac{\mu^2}{\rho\,R\,\theta}\,A^{(1)}_{kl}A^{(1)}_{kl}.$$

In Eq. (130), the coefficient of $\alpha^{(36)}$ in the first term of the last line should be $\frac{1}{3}$ and not $\frac{1}{6}$.

In Eq. (131) remove the coefficient of $\frac{1}{2}$ in the first term of the last line. Subsequently, Eq. (132) should be replaced by

$$\sigma_{\langle ij\rangle} = \alpha^{(24)}\frac{\mu^2}{\rho^3}\,r_{\langle i}r_{j\rangle} + \alpha^{(25)}\frac{\mu^2}{\rho\,\theta^2}\,g_{\langle i}g_{j\rangle} + \alpha^{(26)}\frac{\mu^2}{\rho^2\theta}\,r_{\langle i}g_{j\rangle} + \alpha^{(28)}\frac{\mu^2}{\rho^2}\,R_{\langle ij\rangle}$$
$$+ \alpha^{(30)}\frac{\mu^2}{\rho\,\theta}\,G_{\langle ij\rangle} + \left(\alpha^{(33)}\mu + \alpha^{(34)}\frac{\mu^2}{\rho\,R\,\theta^2}\,\dot{\theta} + \alpha^{(35)}\frac{\mu^2}{\rho\,R\,\theta}\,A^{(1)}_{ll}\right)A^{(1)}_{\langle ij\rangle}$$
$$+ \alpha^{(36)}\frac{\mu^2}{\rho\,R\,\theta}\,\left(\dot{A}^{(1)}_{\langle ij\rangle} - W_{il}\,A^{(1)}_{\langle lj\rangle} + A^{(1)}_{\langle il\rangle}W_{lj}\right).$$

In Eq. (143), in the second line replace "$-2\,\theta_2 + \theta_3 + \theta_5$" with "$\theta_3 + \theta_5$" and modify the last term in the equation from "$g_l W_{li}$" to "$L_{li}\,g_l$." Furthermore, the last two sentences following the equation should be replaced by "In this case, we additionally find that

$$\varepsilon^{(11)} = \theta_2. \tag{1}$$

In the above comparison we take note of the term $-2\,\theta_2(\mu^2/\rho\,\theta)L_{li}\,g_l$ which appears in the conventional Burnett equation arising from the fact that the original Burnett equation is not frame invariant."

The last line of Eq. (150) should be replaced by

$$\frac{\mathscr{R}}{R}\,\alpha^{(35)} = -\frac{1}{4}\left(\omega_1 - \frac{2}{3}\,\omega_2\right), \quad \omega_6 - 2\,\omega_2 = 0.$$

In Eq. (151), change "$\alpha^{(37)}$" to "$\alpha^{(36)}$" on the right hand side of the equation.

Equation (153) should be replaced by

$$\begin{aligned}\sigma_{\langle ij\rangle} = &\left(\alpha^{(24)} + 2\,\frac{\mathscr{R}}{R}\,\alpha^{(36)}\right)\frac{\mu^2}{\rho^3}\,r_{\langle i}r_{j\rangle} + \alpha^{(25)}\,\frac{\mu^2}{\rho\,\theta^2}\,g_{\langle i}g_{j\rangle}\\ &+\left(\alpha^{(26)} - 2\,\frac{\mathscr{R}}{R}\,\alpha^{(36)}\right)\frac{\mu^2}{\rho^2\theta}\,r_{\langle i}g_{j\rangle} + \left(\alpha^{(28)} - 2\,\frac{\mathscr{R}}{R}\,\alpha^{(36)}\right)\frac{\mu^2}{\rho^2}\,R_{\langle ij\rangle}\\ &+\left(\alpha^{(30)} - 2\,\frac{\mathscr{R}}{R}\,\alpha^{(36)}\right)\frac{\mu^2}{\rho\,\theta}\,G_{\langle ij\rangle} + \left[\alpha^{(33)}\mu + \left(\alpha^{(35)} - \frac{1}{3}\,\alpha^{(36)} - \frac{1}{3}\,\alpha^{(34)}\right)\frac{\mu^2}{\rho\,R\,\theta}\,A^{(1)}_{ll}\right]A^{(1)}_{\langle ij\rangle}\\ &-\frac{1}{2}\alpha^{(36)}\frac{\mu^2}{\rho\,R\,\theta}\,A^{(1)}_{\langle ik\rangle}A^{(1)}_{\langle kj\rangle\rangle} - \alpha^{(36)}\frac{\mu^2}{\rho\,R\,\theta}\left(2\,W_{\langle ik}W_{kj\rangle} + W_{ik}\,A^{(1)}_{\langle kj\rangle} - A^{(1)}_{\langle ik\rangle}\,W_{kj}\right).\end{aligned}$$

Delete Eq. (155), the sentence below it, as well as the first equation in (156), and Eqs. (157) and (158) should be, respectively, replaced by

$$2\,W_{\langle ik}W_{kj\rangle} + W_{ik}\,A^{(1)}_{\langle kj\rangle} - A^{(1)}_{\langle ik\rangle}\,W_{kj}$$

and

$$2\,W_{\langle ik}W_{kj\rangle} - W_{ik}\,A^{(1)}_{\langle kj\rangle} + A^{(1)}_{\langle ik\rangle}\,W_{kj}$$

In the first sentence of the paragraph following that of Eq. (158), replace "The requirement (155) arises from the fact that in the conventional Burnett equation" by "The requirement $\omega_6 - 2\,\omega_2 = 0$ in (150) arises from the fact that in the original Burnett equation."

In the last term of the second line of Eq. (B.2), "$\nu^{(16)}$" should be replaced by "ν_{16}," and in the 7th line from the bottom of Eq. (B.6) replace "$A^{(1)}_{ij}$" by "$A^{(2)}_{ij}$."