

Erratum

Erratum to: “Stream instabilities of the quark–gluon plasma” [Phys. Lett. B 214 (1988) 587]

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1. In the line below Eq. (3) there should be ‘ $N\rho$ ’ instead of ‘ N_ρ ’.
2. $\epsilon^{zz}(k)$ given by Eq. (4) should read:

$$\epsilon^{zz}(k) = 1 - \frac{\omega_0^2 [(k_x^2 + k_y^2)u^2 + \omega^2(1 - u^2)](\omega^2 + k_z^2u^2)}{\omega^2 (\omega^2 - k_z^2u^2)^2}.$$

Because of the erroneous expression of $\epsilon^{zz}(k)$ the analysis of collective modes needs to be corrected as explained below.

3. Eq. (7) with the sentence that contains it should be replaced by: $\epsilon^{zz}(k) = 1$ for $u^2 = 1$ and then, there are no longitudinal modes. However, if one solves the equation $\epsilon^{zz}(k) = 0$ for $u^2 < 1$ and then takes the limit $u^2 \rightarrow 1$, the dispersion relation is $\omega^2 = k^2$.
4. The sentence above Eq. (8) ‘The dispersion relation of the longitudinal model coincides with (7)’ should read ‘The dispersion relation of the longitudinal mode is $\omega^2 = \omega_0^2$ ’.
5. Eq. (8) should read: $\omega_{\pm}^2 = \frac{1}{2}[k^2 \pm \sqrt{k^4 + 4\omega_0^2 k^2}]$.