

Erratum: Relaxation times for disoriented isospin condensates in high energy heavy ion collisions **[Phys. Rev. C 111, 024903 (2025)]**

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We have identified a notational mistake in Eq. (67) wherein two instances of the symbol ω were used rather than the appropriate symbol ω_0 . For notational consistency, the equation should read

$$P(x, t) = \left[\frac{m\omega_0^2}{2\pi T w(t)} \right]^{1/2} \exp \left[-\frac{m\omega_0^2}{2T} \frac{(x - \bar{x}(t))^2}{w(t)} \right]. \quad (67)$$

No other corrections are associated with this change.

We have identified a mistake in Eq. (68) wherein the argument of a sine function was written as ωt rather than the appropriate quantity $2\omega t$. Following the work of Chandrasekhar [1], the equation should read

$$w(t) = 1 - e^{-2\gamma t} \left[2 \frac{\gamma^2}{\omega^2} \sin^2 \omega t + \frac{\gamma}{\omega} \sin 2\omega t + 1 \right]. \quad (68)$$

The two corrected figures are included here.

Note that the relaxation times predicted in Figs. 9 and 10 seem to have increased by roughly three orders of magnitude very early in the two temporal evolutions of $P(\varphi, t)/P(0, t)$. However, despite the increase in predicted relaxation times, they remain significantly smaller than the expansion and cooling time of the matter produced in high energy heavy ion collisions, meaning that the conclusions drawn in the original text are unaltered.

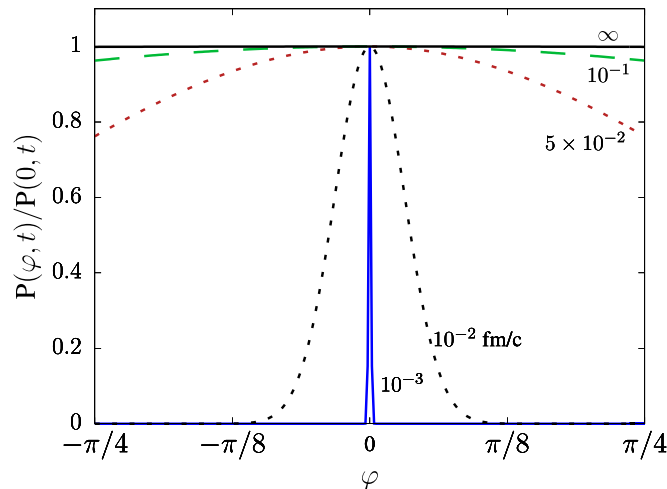


FIG. 9. Temporal evolution of $P(\varphi, t)/P(0, t)$ at $V = 10 \text{ fm}^3$, $T = 200 \text{ MeV}$, $T_x = 160 \text{ MeV}$, $m_\sigma = 450 \text{ MeV}$. Each curve is labeled by the time at which $P(\varphi, t)/P(0, t)$ was plotted.

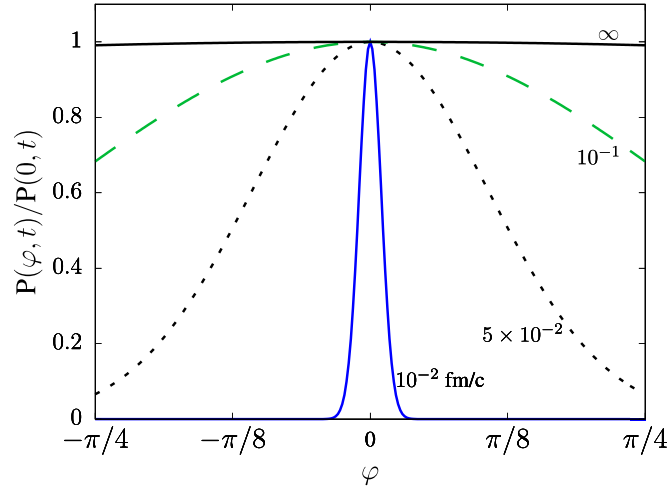


FIG. 10. Temporal evolution of $P(\varphi, t)/P(0, t)$ at $V = 100 \text{ fm}^3$, $T = 200 \text{ MeV}$, $T_x = 160 \text{ MeV}$, $m_\sigma = 450 \text{ MeV}$. Each curve is labeled by the time at which $P(\varphi, t)/P(0, t)$ was plotted.

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- [1] S. Chandrasekhar, *Rev. Mod. Phys.* **15**, 1 (1943).