Erratum: Nonequilibrium protection effect and spatial localization of noise-induced fluctuations: Quasi-one-dimensional driven lattice gas with partially penetrable obstacle [Phys. Rev. E 109, 054103 (2024)]

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There are typographical errors in several equations and in Fig. 3 of the published article, which we correct below.

There is an error in the correlation function of the Langevin source. Equation (3) on p. 3 should read

$$\langle \delta\tilde{I}_k(t)\,\delta\tilde{I}_{k'}(t')\rangle \approx \delta(t-t')\sum_j \left(\nu_{kj}n_k^s h_j^s + \nu_{jk}n_j^s h_k^s\right)(\delta_{kk'} - \delta_{jk'}). \tag{3}$$

Correspondingly, Eq. (A11) on p. 19 should read

$$\langle \delta\tilde{I}_i(t)\,\delta\tilde{I}_{i'}(t')\rangle \approx \delta(t-t')\sum_j \left(\nu_{ij}n_i^s h_j^s + \nu_{ji}n_j^s h_i^s\right)(\delta_{ii'} - \delta_{ji'}). \tag{A11}$$

There is also a typographical error in the coefficient of the linear density fluctuation term, which propagates through several expressions. Equation (9a) on p. 5 should read

$$-\partial_x\delta n + 2g(1-2\bar{n})\delta n = \delta J. \tag{9a}$$

Below Eq. (10), the definition of the dynamical screening length "$\lambda^{-1} = 2g\bar{n}(1-\bar{n})$" should read "$\lambda^{-1} = [2g(1-2\bar{n})]^{-1}$." In the last paragraph of the same subsection, "$\lambda \approx [2g\bar{n}(1-\bar{n})]^{-1}$" should be replaced by "λ^{-1}." The same error propagates to Appendix B: Eq. (B8a) on p. 21 should read

$$-\partial_x\delta n + 2g(1-2\bar{n})\delta n = J - 2g\bar{n}(1-\bar{n}) = \delta J, \tag{B8a}$$

and below Eq. (B9), "$\lambda = 2g\bar{n}(1-\bar{n})$" should read "$\lambda = 2g(1-2\bar{n})$."

In Fig. 3, the line labels incorrectly refer to Eqs. (A18) and (A19); the correct references are Eqs. (B18) and (B19).

Overall, all calculations in the paper were performed using the correct expressions, and the conclusions of the paper remain unchanged.

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