Erratum: Symmetries of spatial correlators of light and heavy mesons in high temperature lattice QCD [Phys. Rev. D 110, 014502 (2024)]

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In the original paper, the symmetry breaking parameters κ_{VA} and κ_{TX} of the $\bar{s}c$ sector at $T \simeq 770$ MeV ($N_t = 4$) were evaluated with the definition $|1 - C_B(zT)/C_A(zT)|$ of Ref. [3] instead of the definition $|C_A(zT) - C_B(zT)|/[C_A(zT) + C_B(zT)]$ of Eq. (4), which is used for all other entries of the paper. For small splittings the former is twice the latter. As a result, the three data points at $T \simeq 770$ MeV in the $\bar{s}c$ panel of Fig. 15 (κ_{VA} at $zT = 0.5$, 1, 2) and the three data points at $T \simeq 770$ MeV in the $\bar{s}c$ panel of Fig. 16 (κ_{TX} at $zT = 0.5$, 1, 2) are too large by a factor of 2. The correct values, obtained from the same z correlators with Eq. (4), are

$$\kappa_{VA}^{\bar{s}c}(zT = 0.5, 1, 2) = 4.114(15) \times 10^{-3}, \quad 5.569(20) \times 10^{-3}, \quad 6.433(27) \times 10^{-3},$$
$$\kappa_{TX}^{\bar{s}c}(zT = 0.5, 1, 2) = 4.718(21) \times 10^{-3}, \quad 5.713(27) \times 10^{-3}, \quad 5.537(37) \times 10^{-3},$$

at $T \simeq 770$ MeV. The corrected Figs. 15 and 16 are shown below, with the figure numbers of the original paper; all data points other than the six listed above are those of the original figures. All other symmetry breaking parameters of the paper, including κ_{AT}, κ_{CS}, and κ of the $\bar{s}c$ sector, are unaffected.

Consequently, the entries of $T_c^{\bar{s}c}$ and $T_1^{\bar{s}c}$ for $\epsilon_{VA} = \epsilon_{TX} = 0.01$ in Tables III and IV, which are obtained by interpolation between the data points at $T \simeq 513$ and 770 MeV, change as follows. In Table III, the row $T_c^{\bar{s}c}$ should read

	$zT = 0.5$		$zT = 1$		$zT = 2$	
ϵ_{VA}	0.05	0.01	0.05	0.01	0.05	0.01
$T_c^{\bar{s}c}$	305(5)	560(5)	360(5)	640(5)	395(5)	675(5)

and in Table IV, the row $T_1^{\bar{s}c}$ should read

	$zT = 0.5$		$zT = 1$		$zT = 2$	
ϵ_{TX}	0.05	0.01	0.05	0.01	0.05	0.01
$T_1^{\bar{s}c}$	335(5)	605(5)	375(5)	655(5)	400(5)	660(5)

where the entries for $\epsilon_{VA} = \epsilon_{TX} = 0.05$ are unchanged, since the corresponding crossings lie between the data points at $T \simeq 257$ and 513 MeV. The entries for $\epsilon = 0.01$ are obtained by linear interpolation of $\log \kappa$ between the data points at $T \simeq 513$ and 770 MeV; linear interpolation of κ itself gives values higher by 20–40 MeV. The hierarchies (25)–(27) and all conclusions of the paper, in particular the hierarchical restoration of chiral symmetries and the temperature windows of the

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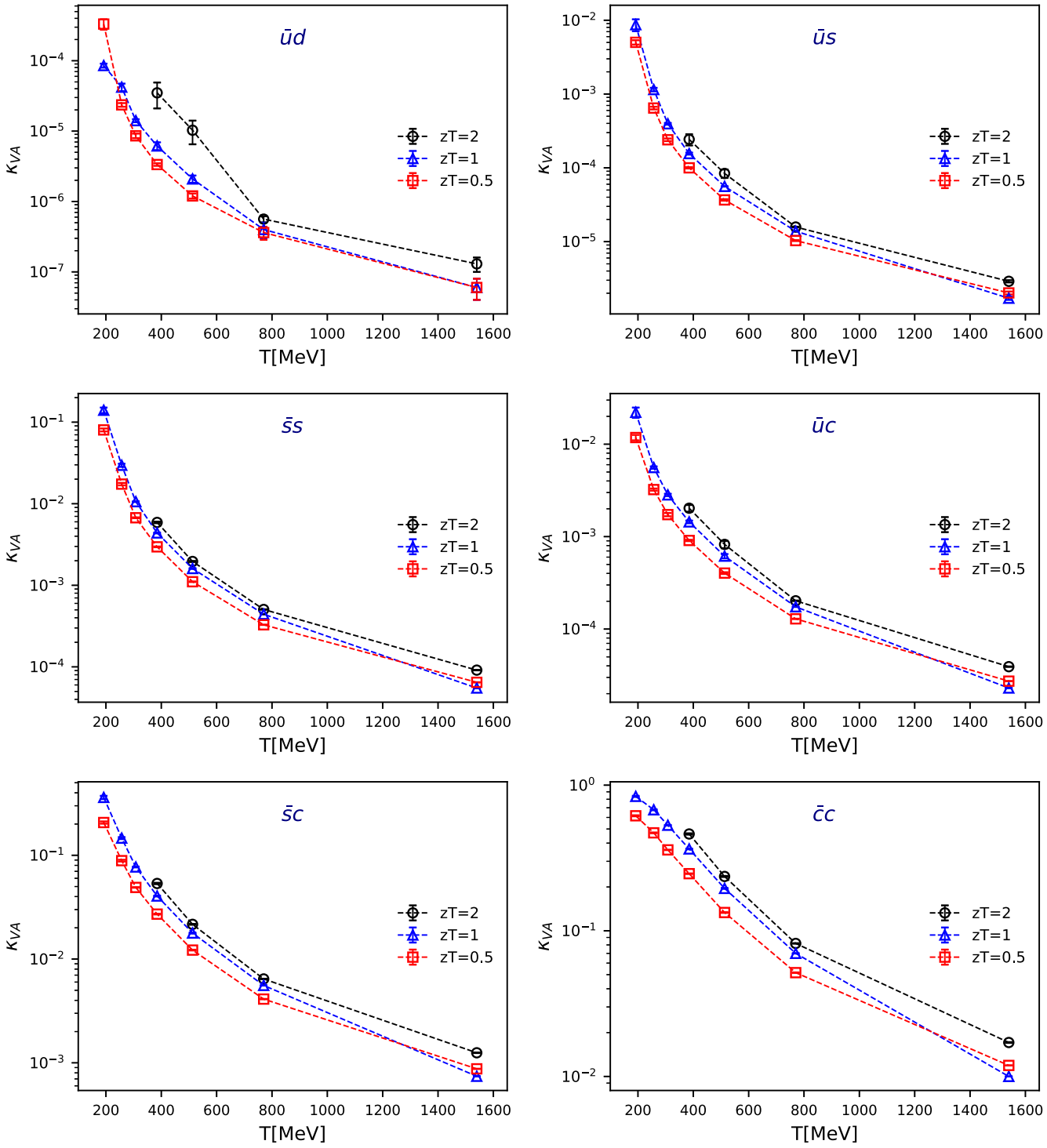


FIG. 15. The $SU(2)_L \times SU(2)_R$ chiral symmetry breaking parameter κ_{VA} at $zT = (0.5, 1, 2)$, for seven temperatures in the range $T \sim 190$–1540 MeV and six flavor combinations ($\bar{u}d$, $\bar{u}s$, $\bar{s}s$, $\bar{u}c$, $\bar{s}c$, $\bar{c}c$).

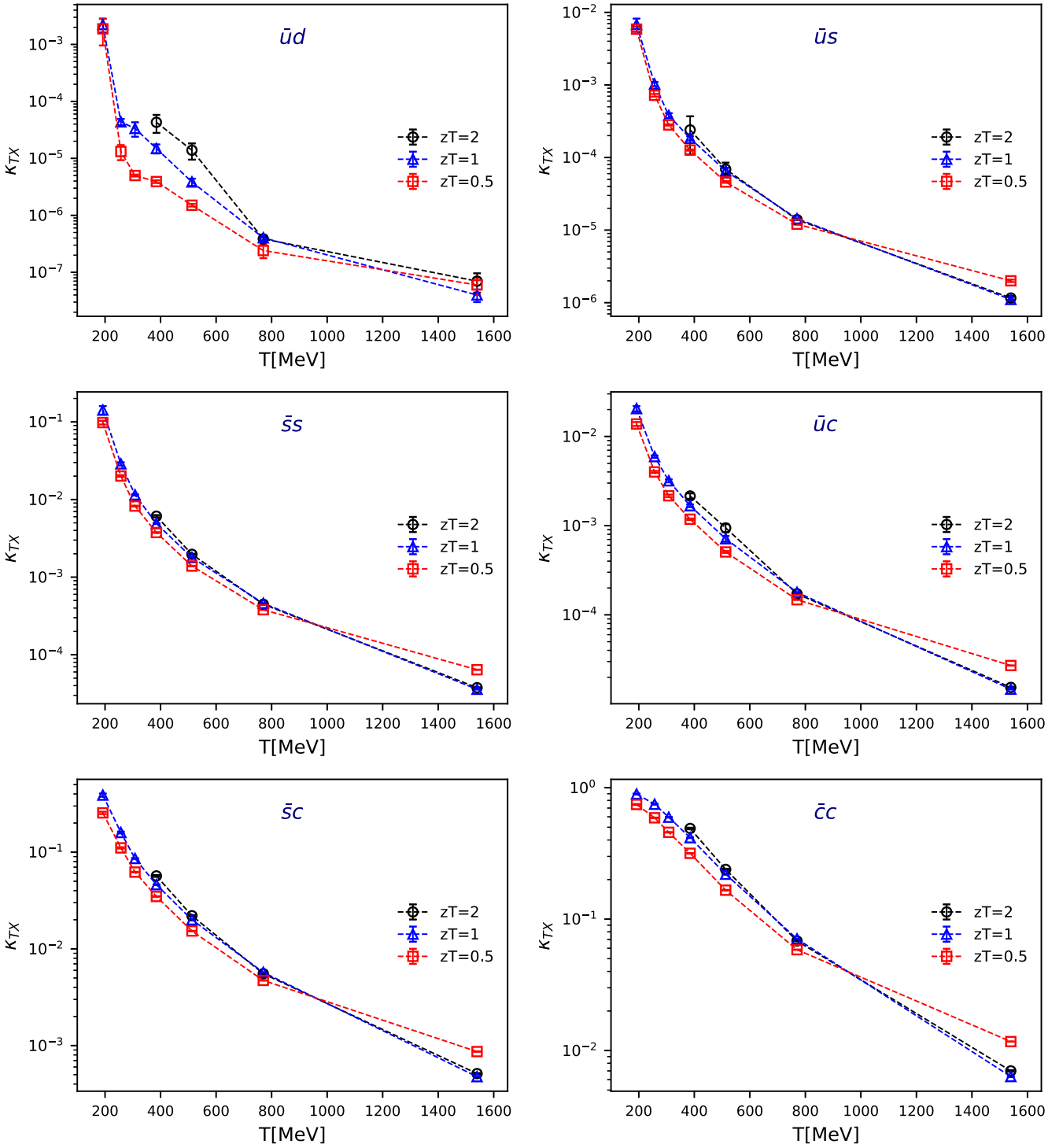


FIG. 16. The $U(1)_A$ symmetry breaking parameter κ_{TX} at $zT = (0.5, 1, 2)$, for seven temperatures in the range $T \sim 190$–1540 MeV and six flavor combinations ($\bar{u}d$, $\bar{u}s$, $\bar{s}s$, $\bar{u}c$, $\bar{s}c$, $\bar{c}c$).

approximate $SU(2)_{CS}$ symmetry in Tables V and VI and Fig. 19, are unaffected, since the $\bar{s}c$ sector remains between the $\bar{s}s$ and $\bar{c}c$ sectors for all values of ϵ_{VA} and ϵ_{TX}, and κ_{CS} and κ do not involve the corrected entries.