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Erratum: Phase structure of finite temperature QCD in the heavy quark region [Phys. Rev. D 84, 054502 (2011)]

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Because of an error in the analysis program developed for [1], the values of β for the transition point at $\kappa > 0$ are slightly shifted. The values of κ_{cp} as well as the conclusions and discussions are not changed.

The error was in a coefficient of a constant term for $dV_{\rm eff}/dP$. This causes slight constant shifts in the results of $dV_{\rm eff}/dP$ at $\kappa > 0$ and thus in the values of $\beta_{\rm trans}$ and $\beta_{\rm cp}$ at $\kappa > 0$. Accordingly, Figs. 3 and 9, Table II, and Eq. (20) should be replaced by those given below:

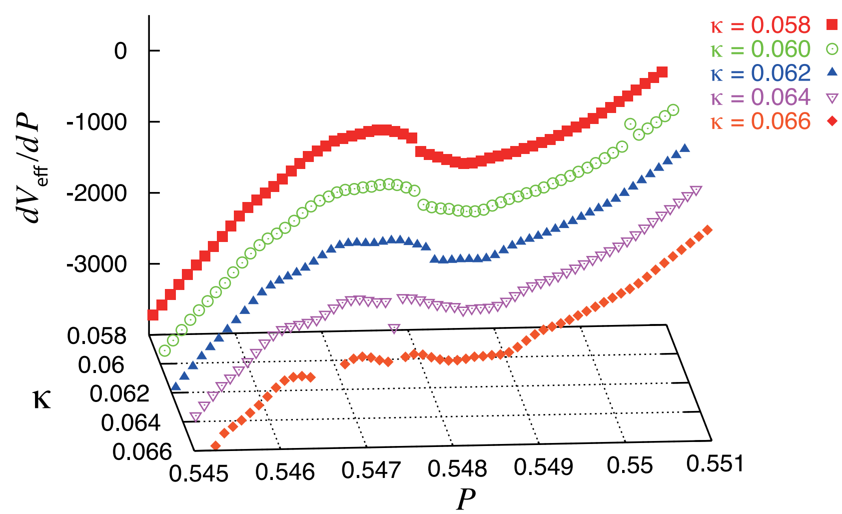

FIG. 3 (color online). Derivative of the effective potential at nonzero κ in two-flavor QCD.

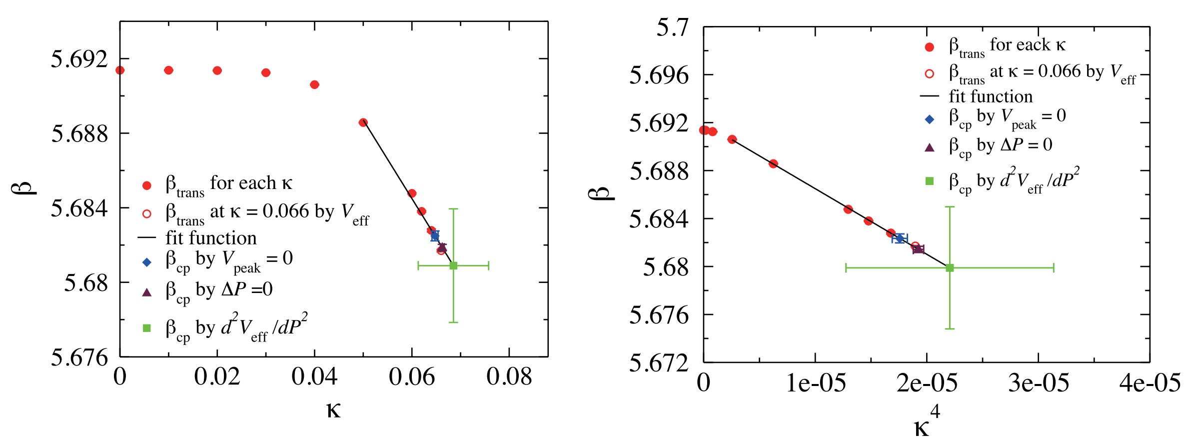

FIG. 9 (color online). $\beta_{\rm trans}$ as a function of κ (left) and κ^4 (right) for $N_{\rm f} = 2$. Also shown are the results of the critical point ($\beta_{\rm cp}$), which are obtained by linearly extrapolating $\beta_{\rm trans}$ in κ (left) or κ^4 (right) to $\kappa_{\rm cp}$ determined by $V_{\rm peak}$ (diamonds), ΔP (triangles), or $d^2V_{\rm eff}/dP^2$ (squares).

TABLE II. Critical point κ_{cp} and β_{cp} defined by V_{peak}, ΔP and d^2V_{eff}/dP^2

Method	κ_{cp}	β_{cp} κ fit	β_{cp} κ^4 fit
V_{peak}	0.0647(06)	5.6824(02)	5.6823(03)
ΔP	0.0662(04)	5.6818(01)	5.6814(02)
d^2V_{eff}/dP^2	0.0685(72)	5.6808(30)	5.6798(50)
Total	$0.0658(03)(^{+4}_{-11})$	5.6819(1)(5)	

$$\beta_{cp} = 5.6819(1)(5). \tag{20}$$

On the other hand, this error does not propagate to d^2V_{eff}/dP^2. Therefore, the discussions and the conclusions of the paper, including the values of κ_{cp} as well as other figures and tables, are not affected.

[1] H. Saito, S. Ejiri, S. Aoki, T. Hatsuda, K. Kanaya, Y. Maezawa, H. Ohno, and T. Umeda, Phys. Rev. D **84**, 054502 (2011).