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Title	Erratum: Phase structure of finite temperature QCD in the heavy quark region [Phys. Rev. D 84, 054502 (2011)]
Author(s)	Saito, Hana; Ejiri, Shinji; Aoki, Sinya; Hatsuda, Tetsuo; Kanaya, Kazuyuki; Maezawa, Yu; Ohno, Hiroshi; Umeda, Takashi
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Relation	



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

H. Saito, S. Ejiri, S. Aoki, T. Hatsuda, K. Kanaya, Y. Maezawa, H. Ohno, and T. Umeda
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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_{eff}/dP . This causes slight constant shifts in the results of dV_{eff}/dP at $\kappa > 0$ and thus in the values of β_{trans} and β_{cp} at $\kappa > 0$. Accordingly, Figs. 3 and 9, Table II, and Eq. (20) should be replaced by those given below:

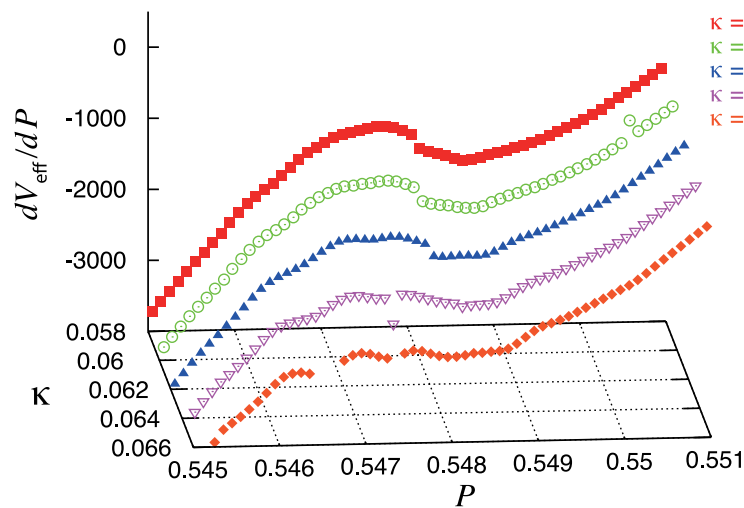


FIG. 3 (color online). Derivative of the effective potential at nonzero κ in two-flavor QCD.

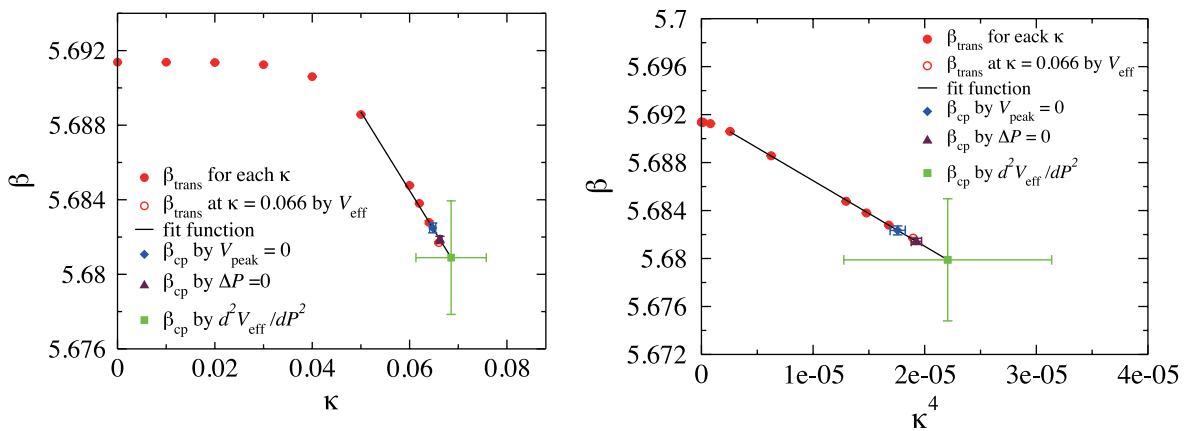


FIG. 9 (color online). β_{trans} as a function of κ (left) and κ^4 (right) for $N_f = 2$. Also shown are the results of the critical point (β_{cp}), which are obtained by linearly extrapolating β_{trans} in κ (left) or κ^4 (right) to κ_{cp} determined by V_{peak} (diamonds), ΔP (triangles), or $d^2 V_{\text{eff}}/dP^2$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

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

Method	κ_{cp}	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)($_{-11}^{+4}$)		5.6819(1)(5)	

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

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.

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