Erratum: Equation of state in a strongly interacting relativistic system [Phys. Rev. C 86, 035205 (2012)]

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The numerical analysis in our original paper had a multiplicative factor of $4\pi^2$ missing in the gap equation [Eq. (6)]. Once this factor is taken into account, we find that the conclusion of the paper regarding the existence of a BCS-BEC crossover at $g = g_{cr}$ (i.e., when $m = \mu$) is not affected, as well as the fact that the diquark-diquark repulsion increases the system pressure. However, the statement that the pressure becomes negative for $g > g_{cr}$ is no longer valid. That is, in our original paper the vacuum pressure was subtracted through a bag constant with the usual QCD value $B^{1/4} = 145$ MeV. Once the $4\pi^2$ factor is correctly incorporated, that value of B is insufficient to produce a negative pressure in the toy model under consideration.

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