

**Errata**

**Erratum:  $CP^{N-1}$  models in the  $1/N$  expansion  
[Phys. Rev. D 45, 618 (1992)].**

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PACS number(s): 11.15.Pg, 11.10.St, 99.10.+g

Equation (4.4) should read

$$\begin{aligned} \Sigma(p) = & \int \frac{d^2k}{(2\pi)^2} \frac{\Delta_{(\alpha)}(k)}{(p+k)^2 + m_0^2} - \int \frac{d^2k}{(2\pi)^2} \frac{\Delta_{(\alpha)}(k)}{k^2 + 4m_0^2} + \int \frac{d^2k}{(2\pi)^2} \Delta_{(\lambda)}(k) \left( 1 - \frac{4p^2k^2 - 4(pk)^2}{k^2[(p+k)^2 + m_0^2]} \right) \\ & - \int \frac{d^2k}{(2\pi)^2} \Delta_{(\lambda)}(k) \frac{k^2}{k^2 + 4m_0^2}. \end{aligned} \tag{4.4}$$

Equation (4.5) should read

$$\Sigma(-m_0^2) = \int \frac{d^2k}{(2\pi)^2} \frac{\Delta_{(\alpha)}(k)}{k^2} \left[ \frac{1}{\xi} - \frac{1}{\xi^2} \right] + \int \frac{d^2k}{(2\pi)^2} \Delta_{(\lambda)}(k) \left[ \xi - \frac{1}{\xi^2} \right]. \tag{4.5}$$

Equation (4.31) should read

$$\Sigma_C^{\text{ren}}(p) = \Sigma_C^{\text{fin}}(p) + (p^2 + 3m_0^2) \frac{1}{2} \ln \frac{M^2}{m_0^2} + (3m_0^2 - 3p^2) \frac{1}{2} \ln \left( \ln \frac{M^2}{m_0^2} - 2 \right). \tag{4.31}$$

In Eq. (5.6) the constant  $c'_1$  should read

$$c'_1 = -15.725\dots$$

Figure 5 was drawn incorrectly; the correct  $NV(R)$  is plotted in Fig. 5 below.

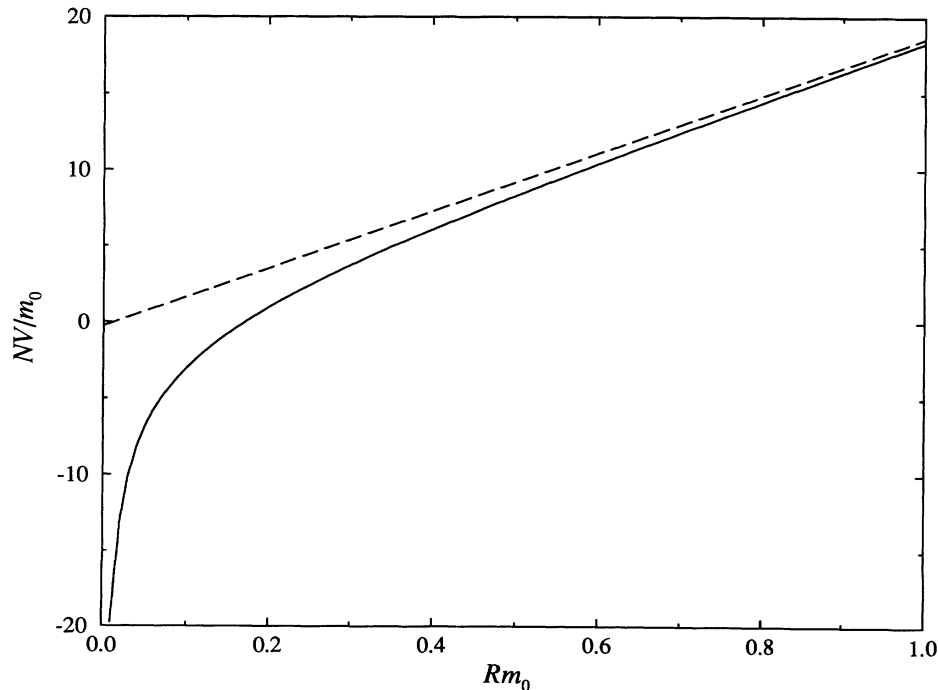


FIG. 5. The  $\bar{z}z$  potential  $NV(R)$  (solid line), compared to the area + perimeter law (dashed line).

Equation (8.4) should read

$$P = \frac{1}{2} (1 + \boldsymbol{\sigma} \cdot \mathbf{S}). \quad (8.4)$$

Equations (8.33) and (8.34) should read

$$\Delta_0^{-1} \underset{p^2 \rightarrow 0}{\sim} \frac{N}{4\pi m_0^2} \left( 1 - \frac{p^2}{6m_0^2} \right) + O(p^4), \quad (8.33)$$

$$\Delta_1^{-1 \text{ ren}} \underset{p^2 \rightarrow 0}{\sim} \frac{1}{4\pi m_0^2} \left\{ -3 \ln \ln \frac{M^2}{m_0^2} - \ln \left( \ln \frac{M^2}{m_0^2} - 2 \right) + c_P + \frac{p^2}{m_0^2} \left[ \frac{2}{3} \ln \ln \frac{M^2}{m_0^2} + \frac{2}{3} \ln \left( \ln \frac{M^2}{m_0^2} - 2 \right) + c'_P \right] \right\} + O(p^4). \quad (8.34)$$