I. CORRECTION OF TYPOS IN "DENSE MATTER IN COMPACT STARS – A PEDAGOGICAL INTRODUCTION"

Page and equation numbers refer to the arXiv version, http://arxiv.org/abs/arXiv:1001.3294.

- p28, eq. (3.4): ..., and the interaction Lagrangian with Yukawa interactions between the nucleons and the mesons is

$$\mathcal{L}_I = g_\sigma \bar\psi\sigma\psi - g_\omega \bar\psi\gamma^\mu\omega_\mu\psi\,. \tag{1}$$

  [the sign in front of g_ω was a plus]

- p30, eq. (3.13) should read

$$Z = e^{\frac{V}{T}\left(-\frac{1}{2}m_\sigma^2\bar\sigma^2+\frac{1}{2}m_\omega^2\bar\omega_0^2\right)}\int\mathcal{D}\psi^\dagger\mathcal{D}\psi\,\exp\left[-\sum_K \psi^\dagger(K)\gamma^0\frac{G^{-1}(K)}{T}\psi(K)\right]\,, \tag{2}$$

  [The γ^0 was missing; this has no consequence for the following since it gives no contribution to the determinant in eq. (3.15), $\det\gamma^0 = 1$.]

- p34, Fig. 3.2 and p37, Fig. 3.3: The label of the vertical axes of both figures should read $\epsilon/n_B - m_N$ [MeV] [The unit MeV was missing.]

- p36, eq. (3.40): On the other hand, from the definition (3.38) we obtain

$$K \;=\; k_F^2\left[\frac{\partial^2(\epsilon/n_B)}{\partial n_B^2}\left(\frac{\partial n_B}{\partial k_F}\right)^2+\frac{\partial(\epsilon/n_B)}{\partial n_B}\frac{\partial^2 n_B}{\partial k_F^2}\right] = 9n_B\frac{\partial^2\epsilon}{\partial n_B^2}+12\left(\frac{\epsilon}{n_B}-\frac{\partial\epsilon}{\partial n_B}\right)\,, \tag{3}$$

  where $\partial n_B/\partial k_F = 3n_B/k_F$ (see Eq. (3.28a)) has been used.

  [the second term after the first equal sign was missing; as a consequence, the 12 in the final result was an 18; for the following argument, this difference is irrelevant]

- p41, below eq. (3.55): The purely gluonic contribution to the Lagrangian is given by

$$\mathcal{L}_{\rm gluons} = -\frac{1}{4}G_a^{\mu\nu}G^a_{\mu\nu}\,, \tag{4}$$

  where $G^a_{\mu\nu} = \partial_\mu A^a_\nu - \partial_\nu A^a_\mu + g f^{abc}A^b_\mu A^c_\nu$ with the $SU(3)_c$ structure constants f^{abc} is the gluon field strength tensor.

  ["f^{abc}" after "structure constants" was missing]

- p118, eq. (A.5):

$$\begin{aligned} Z &= {\rm Tr}\, e^{-\beta(\hat H-\mu\hat N)} \\ &= \int\mathcal{D}\pi\mathcal{D}\pi^*\int_{\rm periodic}\mathcal{D}\varphi\mathcal{D}\varphi^*\,\exp\left[-\int_X\left(\mathcal{H}-\mu\mathcal{N}-i(\pi\partial_\tau\varphi+\pi^*\partial_\tau\varphi^*\right)\right]\,, \end{aligned} \tag{5}$$

  [this partition function was written for a *real* scalar field, but since we discuss a complex field it should include π^* and φ^*; all following related equations correctly contain real and imaginary parts]

- p119, eq. (A.11):

$$\begin{aligned} \mathcal{H}-\mu\mathcal{N} &= \pi_1\partial_0\varphi_1+\pi_2\partial_0\varphi_2-\mathcal{L}_0-\mu\mathcal{N} \\ &= \frac{1}{2}\left[\pi_1^2+\pi_2^2+(\nabla\varphi_1)^2+(\nabla\varphi_2)^2+m^2(\varphi_1^2+\varphi_2^2)+\frac{\lambda}{2}(\varphi_1^2+\varphi_2^2)\right] \\ &\quad -\mu(\varphi_2\pi_1-\varphi_1\pi_2)\,. \end{aligned} \tag{6}$$

  [the term $\propto\lambda$ in the second line was missing]

- p126, eq. (A58) should read

$$\int_X \overline{\psi}\left(-\gamma^0\partial_\tau - i\boldsymbol{\gamma}\cdot\nabla + \gamma^0\mu - m\right)\psi = -\sum_K \psi^\dagger(K)\gamma^0\frac{G_0^{-1}(K)}{T}\psi(K) \tag{7}$$

  [The γ^0 was missing; see above comment to p30, eq. (3.13).]