

## Erratum: The $qqqq\bar{q}$ components and hidden flavor contributions to the baryon magnetic moments [Phys. Rev. C 74, 055205 (2006)]

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 (Received 10 May 2007; published 18 June 2007)

DOI: 10.1103/PhysRevC.75.069901

PACS number(s): 12.39.-x, 13.40.Em, 14.20.Jn, 99.10.Cd

Two mistakes and several typographical errors have been identified in the manuscript in Table III and in Eqs. (19), (26), and (28). The corrections are the following:

(i) The following four lines in Table III should read

TABLE III. Corrected entries for  $qqqq\bar{q}$  components (see Table III of the original article).

$(\frac{1}{2}^+, Y, I, I_3)$	$qqqq\bar{q}$ component ( $[22]_F$ )	$qqqq\bar{q}$ component ( $[211]_F$ )
$(1, 1/2, -1/2)$	$-\sqrt{\frac{2}{3}} uddu\bar{u}\rangle + \sqrt{\frac{1}{3}} udds\bar{s}\rangle$	$ udds\bar{s}\rangle$
$(0, 1, -1)$	$-(\sqrt{\frac{1}{3}} dds\bar{u}\rangle - \sqrt{\frac{2}{3}} dds\bar{s}\rangle)$	$ dds\bar{u}\rangle$
$(-1, 1/2, +1/2)$	$-(\sqrt{\frac{2}{3}} uss\bar{u}\rangle + \sqrt{\frac{1}{3}} uss\bar{d}\rangle)$	$- uss\bar{d}\rangle$
$(-1, 1/2, -1/2)$	$-(\sqrt{\frac{1}{3}} dss\bar{u}\rangle + \sqrt{\frac{2}{3}} dss\bar{d}\rangle)$	$ dss\bar{u}\rangle$

(ii) Equation (19) should read

$$\begin{aligned} \mu_{\Sigma^-} = & -P_{3q} \left( \frac{4M_N}{9m} - \frac{M_N}{9m_s} \right) - P_{(\Sigma^-)s\bar{s}} \left( \frac{M_N}{9m} + \frac{2M_N}{9m_s} \right) \\ & - P_{(\Sigma^-)u\bar{u}} \left( -\frac{2M_N}{9m} + \frac{M_N}{18m_s} \right). \end{aligned} \quad (19)$$

(iii) Equation (26) should read

$$\mu_n = \frac{4\sqrt{6}}{9} F_{35}(P_{(n)u\bar{u}}) - \frac{2\sqrt{3}}{9} F_{35}(P_{(n)s\bar{s}}). \quad (26)$$

(iv) Equation (28) should read

$$\begin{aligned} \mu_{\Sigma^0} = & -\frac{2\sqrt{6}}{9} F_{35}(P_{(\Sigma^0)s\bar{s}}) + \frac{2\sqrt{6}}{9} F_{35}(P_{(\Sigma^0)u\bar{u}}) \\ & - \frac{\sqrt{6}}{9} F_{35}(P_{(\Sigma^0)d\bar{d}}). \end{aligned} \quad (28)$$

(v) As a consequence of these corrections the calculated numerical values for the neutron and  $\Sigma^0$  magnetic moment in Table IV should be modified to

TABLE IV. Corrected entries for magnetic moments of the baryon octet (see Table IV of the original article).

Baryon	Exp	$qqq$	$P_1$	$D(qqq)$	$D(P_1)$
n	-1.91	-1.84	-1.66	3.6%	13.1%
$\Sigma^0$	?	0.84	0.76	?	?

Those in Table V should be modified to

TABLE V. Corrected entries for magnetic moments of the baryon octet (see Table V of the original article).

Baryon	Exp	$P_1$	$P_2$	$P_3$	$P_4$
n	-1.91	-1.66	-1.91	-1.34	-1.66
$\Sigma^0$	?	0.76	0.86	0.60	0.735

After the above corrections the expressions for the magnetic moments of baryon octet satisfy Franklin's general sum rules for baryon magnetic moments that are required by SU(3) flavor symmetry [1].

We are indebted to Professor J. Franklin for bringing to our attention the sum rules for baryon magnetic moments in SU(3) flavor symmetry.

[1] J. Franklin, Phys. Rev. D 66, 033010 (2002).

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