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Supermultiplets and relativistic problems: I. The free particle with arbitrary spin in a magnetic

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1997 J. Phys. A: Math. Gen. 30 5591

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Corrigenda

Supermultiplets and relativistic problems: I. The free particle with arbitrary spin in a magnetic field

M Moshinsky and Yu F Smirnov 1996 J. Phys. A: Math. Gen. 29 6027-42

The following table was omitted from the original article:

Submatrix 10×10 : n = 3, $\{h\} = 3$, k = 0, $\sigma + \tau =$ odd.

στ σ'τ'	$\frac{3}{2}\frac{3}{2}$	$-\frac{1}{2}\frac{3}{2}$	$\frac{1}{2}\frac{1}{2}$	$\frac{\overline{1}}{2}\frac{\overline{1}}{2}$	$-\frac{3}{2}\frac{1}{2}$	$\frac{3}{2} - \frac{1}{2}$	$-\frac{1}{2}-\frac{1}{2}$	$-\frac{1}{2}-\frac{1}{2}$	$\frac{1}{2} - \frac{3}{2}$	$-\frac{3}{2}-\frac{3}{2}$
$ \begin{array}{r} \frac{3}{2}\frac{3}{2}\\ -\frac{1}{2}\frac{3}{2} \end{array} $	3 - 3E	0	-2a	$-2\sqrt{2}a$	0	0	0	0	0	0
$-\frac{1}{2}\frac{3}{2}$	0	3 - 3E	$4\sqrt{3}b$	$-\frac{2b}{\sqrt{3}}$	-2c	0	0	0	0	0
$\frac{1}{2}\frac{1}{2}$	2a	$-4\sqrt{3}b$	1 - 3E	0	0	$\frac{4a}{\sqrt{3}}$	$-\frac{8b}{3}$	$-\frac{2\sqrt{2}b}{3}$	0	0
$\frac{\overline{1}}{2}\frac{\overline{1}}{2}$	$2\sqrt{2}a$	$\frac{2b}{\sqrt{3}}$	0	1 - 3E	0	$-\frac{2\sqrt{2}a}{\sqrt{3}}$	$\frac{-\frac{8b}{3}}{-\frac{2\sqrt{2}b}{3}}$	$-\frac{10b}{3}$	0	0
$ \frac{1}{2}\frac{1}{2}$ $\frac{1}{2}\frac{1}{2}$ $-\frac{3}{2}\frac{1}{2}$	0	2c	0	0	1-3E	0	$\frac{4c}{\sqrt{3}}$	$-\frac{2\sqrt{2}c}{\sqrt{3}}$	0	0
$\frac{3}{2} - \frac{1}{2}$	0	0	$\frac{-\frac{4a}{\sqrt{3}}}{\frac{8b}{3}}$	$\frac{2\sqrt{2}a}{\sqrt{3}}$	0	-1 - 3E	0	0	-2a	0
$-\frac{1}{2}-\frac{1}{2}$	0	0	$\frac{8b}{3}$	$\frac{2\sqrt{2}b}{3}$	$-\frac{4c}{\sqrt{3}}$	0	-1 - 3E	0	$\frac{4b}{\sqrt{3}}$	-2c
$-\frac{1}{2}-\frac{1}{2}$	0	0	$\frac{2\sqrt{2}b}{3}$	$\frac{2\sqrt{2}a}{\sqrt{3}}$ $\frac{2\sqrt{2}b}{3}$ $\frac{10b}{3}$	$\frac{-\frac{4c}{\sqrt{3}}}{\frac{2\sqrt{2}c}{\sqrt{3}}}$	0	0	-1 - 3E	$-\frac{\frac{4b}{\sqrt{3}}}{\frac{2\sqrt{2}b}{3}}$	$-2\sqrt{2}c$
$\frac{1}{2} - \frac{3}{2}$	0	0	0	0	0	2a	$-\frac{4b}{\sqrt{3}}$	$\frac{2\sqrt{2}b}{\sqrt{3}}$	-3 - 3E	0
$-\frac{3}{2}-\frac{3}{2}$	0	0	0	0	0	0	20	$2\sqrt{2}c$	0	-3 - 3E

(4.32)

Here

-

$$a = i\omega\sqrt{\mu - \frac{1}{2}}$$

$$b = i\omega\sqrt{\mu + \frac{1}{2}}$$

$$c = i\omega\sqrt{\mu + \frac{3}{2}}$$

$$\sigma(\tau) = \pm \frac{1}{2} \quad \text{corresponds to } S(T) = \frac{1}{2}$$

$$\sigma(\tau) = \pm \frac{1}{2}, \pm \frac{3}{2} \quad \text{corresponds to } S(T) = \frac{3}{2}.$$

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The analytic inversion of any finite symmetric tridiagonal matrix

H A Yamani and M S Abdelmonem 1997 J. Phys. A: Math. Gen. 30 2889-93

Equation (12) was incorrectly printed in this comment. The correct version is:

$$\begin{pmatrix} (H_{PP} - zI_{PP}) & H_{PQ} \\ H_{QP} & (H_{QQ} - zI_{QQ}) \end{pmatrix} \begin{pmatrix} G_{PP} & G_{PQ} \\ G_{QP} & G_{QQ} \end{pmatrix} = \begin{pmatrix} I_{PP} & 0 \\ 0 & I_{QQ} \end{pmatrix}.$$

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