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

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Corrigenda

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

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The following table was omitted from the original article:

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

$\sigma\tau$ / $\sigma'\tau'$	$\frac{3}{2}\frac{3}{2}$	$-\frac{1}{2}\frac{3}{2}$	$\frac{1}{2}\frac{1}{2}$	$\frac{\bar{1}}{2}\frac{\bar{1}}{2}$	$-\frac{3}{2}\frac{1}{2}$	$\frac{3}{2}-\frac{1}{2}$	$-\frac{1}{2}-\frac{1}{2}$	$-\frac{1}{2}-\frac{1}{2}$	$\frac{1}{2}-\frac{3}{2}$	$-\frac{3}{2}-\frac{3}{2}$
$\frac{3}{2}\frac{3}{2}$	$3-3E$	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
$\frac{\bar{1}}{2}\frac{\bar{1}}{2}$	$2\sqrt{2}a$	$\frac{2b}{\sqrt{3}}$	0	$1-3E$	0	$-\frac{2\sqrt{2}a}{\sqrt{3}}$	$-\frac{2\sqrt{2}b}{3}$	$-\frac{10b}{3}$	0	0
$-\frac{3}{2}\frac{1}{2}$	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	$-\frac{4a}{\sqrt{3}}$	$\frac{2\sqrt{2}a}{\sqrt{3}}$	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	$\frac{4b}{\sqrt{3}}$	$-2c$
$-\frac{\bar{1}}{2}-\frac{\bar{1}}{2}$	0	0	$\frac{2\sqrt{2}b}{3}$	$\frac{10b}{3}$	$\frac{2\sqrt{2}c}{\sqrt{3}}$	0	0	$-1-3E$	$-\frac{2\sqrt{2}b}{3}$	$-2\sqrt{2}c$
$\frac{1}{2}-\frac{3}{2}$	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	$2c$	$2\sqrt{2}c$	0	$-3-3E$

(4.32)

Here

$$a = i\omega\sqrt{\mu - \tfrac{1}{2}}$$
$$b = i\omega\sqrt{\mu + \tfrac{1}{2}}$$
$$c = i\omega\sqrt{\mu + \tfrac{3}{2}}$$

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

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

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The analytic inversion of any finite symmetric tridiagonal matrix

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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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