A generalization of the construction of the class operator

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Corrigenda

A generalization of the construction of the class operator

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1. The following two inaccuracies in the text should be corrected. The remaining results and conclusions are not influenced by those changes.

(a) The set Λ_e appearing on page 172 should be defined as

$$\Lambda_e = \left\{(t_1, t_2, t_3) \in \mathbf{R}^3 \mid \sqrt{t_1^2 + t_2^2 + t_3^2} = 2k\pi, k \in \mathbf{Z}\right\}.$$

(b) On page 172, the paragraph beginning with 'For the case of the character $\chi_s \ldots$' and ending with the displayed formula for $\chi_s(g(\theta))$ should be replaced by the following text:

For the case of the irreducible representation (T_s, V_s) of $SU(2)$ of dimension $2s+1$ with an integer s, we have (recalling the expression for the character $\chi_s(g)$, $g = g(\phi, \theta, \varphi)$, in terms of the Euler parameters ϕ, θ, φ; see [10], chapter III, §7)

$$\frac{1}{4\pi}\int_{-2\pi}^{2\pi} \chi_s(\phi, \theta, \varphi)\mathrm{d}\varphi = P_s(\cos\theta)$$

where P_s is the Legendre polynomial of degree s. Thus we have

$$\begin{aligned} T_j(\overline{\chi_s}; g(\psi)) &= \frac{1}{16\pi^2}\int_0^{2\pi}\int_0^{\pi}\int_{-2\pi}^{2\pi} \overline{\chi_s}(g(\phi, \theta, \varphi))T_j \exp\left(\mathrm{i}\frac{\psi}{2}\boldsymbol{n}(\theta, \phi)\cdot\boldsymbol{\sigma}\right)\sin\theta\,\mathrm{d}\varphi\,\mathrm{d}\theta\,\mathrm{d}\phi \\ &= \frac{1}{4\pi}\int_0^{2\pi}\int_0^{\pi} P_s(\cos\theta)T_j \exp\left(\mathrm{i}\frac{\psi}{2}\boldsymbol{n}(\theta, \phi)\cdot\boldsymbol{\sigma}\right)\sin\theta\,\mathrm{d}\theta\,\mathrm{d}\phi. \end{aligned} \qquad (13)$$

2. The final version of the paper was written when the first named author (AO) was at Arbeitsgruppe 'Nichtklassische Strahlung' der Max–Planck–Gesellschaft an der Humboldt–Universität zu Berlin.

Two electrons in a homogeneous magnetic field: particular analytical solutions

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In the caption to figure 2, '$1/\tilde{\omega}_r = 2904.617$, and 29 312.4' (i.e. two numbers) should read '$1/\tilde{\omega}_r = 2, 904.617$, and 29 312.4' (i.e. three numbers).

Also, the caption to table 1 contains a misprint, and a portion of the data in the table (from $n = 10$, $N_r = 0$ to $n = 14$, $N_r = 0$) was omitted. The correct table reads: