

**Erratum: Theory of difference-frequency quantum oscillations [Phys. Rev. B 108, 054202 (2023)]**

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In Sec. V, Eqs. (32), (33), and (E2) contain a typographical error: The term  $(E - \mu)$  is missing. The correct version reads

$$\Omega = \int_{-\infty}^{\infty} dE n_F(E - \mu) \rho(E) (E - \mu), \quad (32)$$

$$\hat{\Omega}(\mu) = \int_{-\infty}^{\infty} dE \Theta(\mu - E) \rho(E) (E - \mu), \quad (33)$$

$$\begin{aligned} \hat{\Omega}(\mu) &= \int_0^{\infty} \theta(\mu - E) \cos\left(2\pi \frac{E + W}{\omega_c}\right) (E - \mu) \\ &= \frac{\omega_c^2}{4\pi^2} \cos\left(2\pi \frac{\mu + W}{\omega_c}\right). \end{aligned} \quad (E2)$$

Equation (32) is the general finite temperature expression for the grand canonical potential of free fermions and it evaluates to Eq. (33) at zero temperature. In Eqs. (E3)–(E5), the expressions for the amplitudes are missing a prefactor  $\omega_c/4\pi$ . The correction version reads

$$A_{1F\lambda} = -\frac{\omega_c}{8\pi^3 \ell_B^2}, \quad (E3)$$

$$A_{2F\lambda} = \frac{\omega_c}{8\pi^3 \ell_B^2} (1 - 2\pi \tilde{\alpha}_\lambda \tau_\lambda), \quad (E4)$$

$$A_+ = -\frac{\omega_c}{4\pi^3 \ell_B^2 (m_1 + m_2)} (m_1 \tilde{\beta}_1 \tau_1 + m_2 \tilde{\beta}_2 \tau_2). \quad (E5)$$

Both errors originate from the same oversight.

These corrections do not affect the results or conclusions of the paper.