Erratum: Electron-phonon interactions from first principles [Rev. Mod. Phys. 89, 15003 (2017)]

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In Fig. 1(d) the electron-phonon coupling function q should appear on the left of the vertex Γ . The correct figure is

$$\bigvee_{g}^{\text{(d)}} = \bigvee_{g^{\text{b}}} + \bigvee_{g} \underbrace{\Gamma}_{G}^{G}$$

In order to be consistent with the definition of the electron-phonon matrix element in Eq. (38), the factor $N_p^{-1/2}$ should be removed from Eqs. (2), (57), (58), (61), and (180). This factor is already included in the definition of the electron-phonon Hamiltonian in Eq. (37).

The current density defined on p. 46 misses the volume Ω . The correct expression is

$$\mathbf{J} = -\frac{2e}{\Omega} \sum_{n} \int \frac{d\mathbf{k}}{\Omega_{\text{BZ}}} \mathbf{v}_{n\mathbf{k}} f_{n\mathbf{k}}.$$

In Eq. (202) the sum should also run over the band index m, and the terms within the square brackets should be divided by $f_{n\mathbf{k}}^0(1-f_{n\mathbf{k}}^0)$ and $f_{m\mathbf{k}+\mathbf{q}}^0(1-f_{m\mathbf{k}+\mathbf{q}}^0)$, respectively. The correct equation is

$$\frac{\partial f_{n\mathbf{k}}^{0}}{\partial \varepsilon_{n\mathbf{k}}} \mathbf{v}_{n\mathbf{k}} \cdot (-e) \mathbf{E} = -\sum_{m\nu} \int \frac{d\mathbf{q}}{\Omega_{\mathrm{BZ}}} \Gamma_{mn\nu}(\mathbf{k}, \mathbf{q}) \left[\frac{f_{n\mathbf{k}} - f_{n\mathbf{k}}^{0}}{f_{n\mathbf{k}}^{0} (1 - f_{n\mathbf{k}}^{0})} - \frac{f_{m\mathbf{k}+\mathbf{q}} - f_{m\mathbf{k}+\mathbf{q}}^{0}}{f_{m\mathbf{k}+\mathbf{q}}^{0} (1 - f_{m\mathbf{k}+\mathbf{q}}^{0})} \right]. \tag{202}$$

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