

$$1. \text{ p.74, } \ell.3\text{u: } \sqrt{\frac{q}{q-1}} \implies \frac{q}{q-1}$$

$$2. \text{ p.75, } \ell.2,6,8: \sqrt{\frac{q}{q-1}} \implies \frac{q}{q-1}$$

$$3. \text{ p.230, } \ell.11: = \int_0^\tau s^{2/(2-\alpha)} ds + \dots \implies = \int_0^\tau s^{2/(2-\alpha)} ds + \dots$$

4. p.273,  $\ell.6 - \ell.10$  of the proof of Cor.2.149 is changed as follows.:

Let  $\Phi_\delta = \int_{\mathbb{R}^d} \Phi(q) 1_{\{|p-q| \leq \delta\}} dq$ , where we assume that  $\Phi(q)$  satisfies

$$E(q) \leq \frac{(\Phi(q), H(q)\Phi(q))}{\|\Phi(q)\|^2} < E, \quad |p-q| \leq \delta.$$

We have

$$E\|\Phi_\delta\|^2 > \int_{|q-p| \leq \delta} (\Phi(q), H(q)\Phi(q)) dq = (\Phi_\delta, H\Phi_\delta).$$

This contradicts that  $E$  is the bottom of the spectrum of  $H_N$ . Hence  $E(0) \leq E_N \leq E(p)$  for all  $p \in \mathbb{R}^d$ . From the continuity of  $E(p)$ , it follows that  $E(0) = E_N$ .

$$5. \text{ p.271, } \ell.1: \mathcal{T}F_s(p) \rightarrow \Psi \implies \mathcal{T}F_s(p) \rightarrow (2\pi)^{-d/2}\Psi$$

$$6. \text{ p.271, } \ell.2: \mathcal{T}G_r(p) \rightarrow \Phi \implies \mathcal{T}G_r(p) \rightarrow (2\pi)^{-d/2}\Phi$$

$$7. \text{ p.271, } \ell.7\text{u: } e^{i\xi \cdot P^{tot}} G_r(x) \implies e^{-i\xi \cdot P^{tot}} G_r(x)$$

$$8. \text{ p.271, } \ell.6\text{u: } \dots = \int_{\mathbb{R}^d} \mathbb{E}^x[\Pi_s(x)\Pi_r(B_t - \xi)] \dots \implies \dots = \int_{\mathbb{R}^d} \mathbb{E}^x[\Pi_s(0)\Pi_r(B_t - \xi)] \dots$$

$$9. \text{ p.287, (2.12.34): } g^2 + g^{2\frac{1+\theta}{1-\theta}} \implies g^2 + g^{\frac{4}{1-\theta}}$$

$$10. \text{ p.347, } \ell.9\text{u: } \frac{e}{2}\hat{A}^\mu(y) \implies i\frac{e}{2}\hat{A}^{\mu\mu}(y)$$

$$11. \text{ p.347, } \ell.11\text{u: } \frac{1}{2}\partial_{y_\mu}^2 \hat{A}(y) \cdot (x-y) - \partial_{y_\mu} \hat{A}_\mu(y) \implies e \left\{ \frac{1}{2}\partial_{y_\mu}^2 \hat{A}(y) \cdot (x-y) - \partial_{y_\mu} \hat{A}_\mu(y) \right\}$$

$$12. \text{ p.347, } \ell.12\text{u: } \frac{1}{2} \left\{ \partial_{y_\mu}^2 \hat{A}(y) \cdot (x-y) - (\hat{A}_\mu(y) + \hat{A}_\mu(x)) \right\} \implies \frac{1}{2}e \left\{ \partial_{y_\mu}^2 \hat{A}(y) \cdot (x-y) - (\hat{A}_\mu(y) + \hat{A}_\mu(x)) \right\}$$

$$13. \text{ p.347, } \ell.9\text{u: }$$

$$\begin{aligned} \Gamma_\mu^+(x, y) &= \left( F(x), (\hat{A}^\mu(y)i\partial_{y_\mu} + \frac{e}{2}\hat{A}^\mu(y) + \frac{e}{2}\hat{A}^\mu(y)(\hat{A}_\mu(x) + \hat{A}_\mu(y))G(y)) \right) (x-y) \\ &\quad - \frac{e^2}{4}(F(x), (\hat{A}^\mu(y)(x-y))^2 G(y)) \\ &\implies \\ \Gamma_\mu^+(x, y) &= \left( F(x), e^{i\mathfrak{h}(x,y)}(\hat{A}^\mu(y)i\partial_{y_\mu} + \frac{e}{2}i\hat{A}^{\mu\mu}(y) + \frac{e}{2}\hat{A}^\mu(y)(\hat{A}_\mu(x) + \hat{A}_\mu(y))G(y)) \right) (x-y) \\ &\quad - \frac{e^2}{4}(F(x), e^{i\mathfrak{h}(x,y)}(\hat{A}^\mu(y)(x-y))^2 G(y)) \end{aligned}$$

14. p.347, ℓ.7u:

$$\begin{aligned}\Gamma_\mu^-(x, y) &= \left( F(x), \left( \Delta_{y_\mu} - e(\hat{A}(x) + \hat{A}(y))i\partial_{y_\mu} - \frac{e^2}{4}(\hat{A}_\mu(x) + \hat{A}_\mu(y))^2 \right) G(y) \right) \\ &\implies \\ \Gamma_\mu^-(x, y) &= \left( F(x), e^{i\mathfrak{h}(x, y)} \left( \Delta_{y_\mu} - e(\hat{A}(x) + \hat{A}(y))i\partial_{y_\mu} - \frac{e^2}{4}(\hat{A}_\mu(x) + \hat{A}_\mu(y))^2 \right) G(y) \right)\end{aligned}$$

15. p.357, ℓ.9u:

$$d|Y_t^\mu|^2 = 2\text{Re}(Y_t e^{-ik_0 t} e^{-ik \cdot B_t}) dB_t^\mu + dt \implies d|Y_t^\mu|^2 = 2\text{Re}(Y_t e^{ik_0 t} e^{ik \cdot B_t}) dB_t^\mu + dt$$

16. p.357, ℓ.7u:

$$\dots \left( \int_0^t Y_s e^{-ik_0 s} e^{-ik \cdot B_s} dB_s \right) d\mathbf{k} \dots \implies \dots \left( \int_0^t Y_s e^{ik_0 s} e^{ik \cdot B_s} dB_s \right) d\mathbf{k} \dots$$

$$17. \text{ p.397, (3.8.20): } \dots = \sum_{\nu=1}^3 \mathcal{R}_{\mu\nu} a^\sharp(\dots) \implies \dots = \sum_{\nu=1}^3 \mathcal{R}_{\mu\nu} a^*(\dots)$$

$$18. \text{ p.397, (3.8.19): } J_p = n \cdot \ell_x + \frac{1}{2} n \cdot \sigma \implies J_p = n \cdot \ell_x - \frac{1}{2} n \cdot \sigma$$

$$19. \text{ p.398, ℓ.7: } e^{i\phi n \cdot (1/2)\sigma} \sigma_\mu e^{-i\phi n \cdot (1/2)\sigma} = (\mathcal{R}\sigma)_\mu \implies e^{i\phi n \cdot (1/2)\sigma} \sigma_\mu e^{-i\phi n \cdot (1/2)\sigma} = (\mathcal{R}^{-1}\sigma)_\mu$$

$$20. \text{ p.398, ℓ.9: } = \frac{1}{2}(\mathcal{R}(-i\nabla) - e\mathcal{R}\hat{A}(x))^2 + H_{rad}+ \implies = \frac{1}{2} \left( \mathcal{R}\sigma \cdot \mathcal{R}((-i\nabla) - e\hat{A}(x)) \right)^2 + H_{rad}+$$

$$21. \text{ p.398, (3.8.22): } \text{Spec}(n \cdot (\ell_x + (1/2)\sigma)) = \mathbb{Z}_{1/2} \implies \text{Spec}(n \cdot (\ell_x - (1/2)\sigma)) = \mathbb{Z}_{1/2}$$

$$22. \text{ p.400, ℓ.2u: } J = (\ell_{x_3} + \frac{1}{2}\sigma_3) \otimes 1 + 1 \otimes L_{f,3} \implies J = (\ell_{x_3} - \frac{1}{2}\sigma_3) \otimes 1 + 1 \otimes L_{f,3}$$

$$23. \text{ p.416, 14: } Y_1 = - \int_0^t \hat{H}_{E,d}(B_r, \theta_{N_r}, r) R dr \implies Y_1 = - \int_0^t \hat{H}_{E,d}(B_r, \theta_{N_r}, r) dr$$

24. p.425, Lemma 3.97: (1) in the proof of Theorem 3.96 is true.  $\implies$  Statement (1) of the proof of Theorem 3.96 is true.

$$25. \text{ p.429, 3u: } Y_t(1)_n \implies Y_t^n(1)$$

$$26. \text{ p.429, 2u: } Y_t(2)_n \implies Y_t^n(2)$$

$$27. \text{ p.429, 1u: } (3) \|Y_t(3, \varepsilon)_n - e^{Y_t(3, \varepsilon)}\| \implies (3) \|e^{Y_t^n(3)} - e^{Y_t(3, \varepsilon)}\|$$

$$28. \text{ p.443, ℓ.8u: } \sqrt{3tT_t} \|\hat{\varphi}/\sqrt{\omega}\| \sum_{j=n+1}^m \left( \frac{1}{\sqrt{2}} \right)^j \implies \sqrt{3tT_t} \|\hat{\varphi}\| \sum_{j=n+1}^m \left( \frac{1}{\sqrt{2}} \right)^j$$

$$29. \text{ p.443, ℓ.10u: } 3tT_t \frac{t}{2^n} \|\hat{\varphi}/\sqrt{\omega}\|^2 \implies 3tT_t \frac{t}{2^n} \|\hat{\varphi}\|^2$$

$$30. \text{ p.458, 10: } I_m(c) = \dots \implies I_n(c) = \dots$$

31. p.458, 10:  $I_m = \dots \Rightarrow I_n = \dots$
32. p.458, 11:  $I_m(c) \rightarrow K_t^{\text{rel}}(c)$  and  $I_m \rightarrow K_t$  as  $m \rightarrow \infty \Rightarrow I_n(c) \rightarrow K_t^{\text{rel}}(c)$  and  $I_n \rightarrow K_t$  as  $n \rightarrow \infty$
33. p.502, (4.5.1):  $+1 \otimes \frac{1}{2} \left( -\frac{d^2}{dx^2} + \omega x \frac{d}{dx} \right) + \Rightarrow +1 \otimes \frac{1}{2} \left( -\frac{d^2}{dx^2} + 2\omega x \frac{d}{dx} \right) +$
34. p.502, ℓ.11u, 3u, 1u:  $\frac{1}{2} \left( -\frac{d^2}{dx^2} + \omega x \frac{d}{dx} \right) \Rightarrow \frac{1}{2} \left( -\frac{d^2}{dx^2} + 2\omega x \frac{d}{dx} \right)$