

**Errata for the 1st edition of
“Lectures on Classical and Quantum Theory of Fields”**

page	is	should be
15, below (1.46)	$a_{\pm}(\vec{k}) = \frac{C(\pm\omega(\vec{k}), \pm\vec{k})}{(2\pi)^2 \sqrt{4\pi\omega(\vec{k})}}$	$a_{\pm}(\vec{k}) = \frac{C(\pm\omega(\vec{k})/c, \pm\vec{k})}{(2\pi)^2 \sqrt{4\pi\omega(\vec{k})}}$
30, formula for S_{NG}	$-(\dot{X}^{\mu}\dot{X}_{\mu})(X'^{\mu}X'_{\mu})$	$-(\dot{X}^{\mu}\dot{X}_{\mu})(X'^{\nu}X'_{\nu})$
30, Exercise 2.2(a)	$dX^{\mu}(t, x)dX_{\mu}(t, s) = \dots$	$dX^{\mu}(t, s)dX_{\mu}(t, s) = \dots$
95, formula next to the last	$\dots = \psi(x')^{\dagger} \dots$	$\dots = \psi(x)^{\dagger} \dots$
95, formula (5.27)	$\dots = \bar{\psi}(x') \dots$	$\dots = \bar{\psi}(x) \dots$
97, the last formula	$\psi'_{R,L}(x) = P_{\pm}\psi'(x),$	$\psi'_{R,L}(x') = P_{\pm}\psi'(x'),$
104, 3rd line from the bottom	anti-commutes	anticommutes
118, 9th line from the top	The functions $h_i(\vec{k}),$	The test functions $h_i(\vec{k}),$
130, 10th line from the top	$\bar{\psi} = \gamma^0\psi^{\dagger}$	$\bar{\psi} = \psi^{\dagger}\gamma^0$
134, the first formula	$\Sigma_3 v_s^{(\pm)}(\vec{p}) = s v_s^{(\pm)}(\vec{p})$	$\Sigma_3 v_s^{(\pm)}(\vec{p}=0) = s v_s^{(\pm)}(\vec{p}=0)$

page	is	should be
134, 3rd line from the top	... the Dirac particle.	... the Dirac particle at rest.
134, formula (6.80)	$(v_r^\epsilon(\vec{p}))^\dagger v_s^{\epsilon'}(\vec{p}) = \dots$	$(v_r^{(\epsilon)}(\vec{p}))^\dagger v_s^{(\epsilon')}(\vec{p}) = \dots$
138, formula (6.94)	$\frac{1}{\sqrt{n!m!}}$	$\frac{1}{\sqrt{N!M!}}$
138, 7th line from the bottom	... are absent. The are absent. Below we assume that $N \geq 1, M \geq 1$. The ...
138, the line next to the last	$\sum_{n=0}^N r_n + \sum_{i=0}^M s_i$	$\sum_{n=1}^N r_n + \sum_{i=1}^M s_i$
139, formula (6.95)	$\sum_{i=0}^N \omega(\vec{q}_i) + \sum_{j=0}^M \omega(\vec{p}_j)$	$\sum_{i=1}^N \omega(\vec{q}_i) + \sum_{j=1}^M \omega(\vec{p}_j)$
139, formula (6.98)	$\sum_{j=1}^M p^k$	$\sum_{j=1}^M p_j^k$
155, formula in the middle of the page	$\frac{d\hat{\phi}_I(t, \vec{x})}{dt} = \dots$	$\frac{\partial \hat{\phi}_I(t, \vec{x})}{\partial t} = \dots$
155, formula in the middle of the page	$\frac{d\hat{\pi}_I(t, \vec{x})}{dt} = \dots$	$\frac{\partial \hat{\pi}_I(t, \vec{x})}{\partial t} = \dots$

page	is	should be
161, subtitle 7.2	... Functions: Wick Functions. Wick ...
175, in all formulas	$(: \tilde{V}_{Ig}[\tilde{\beta}] :)$	$(\tilde{V}_{Ig}[\tilde{\beta}])$
193, formula (8.17)	$A_1^{ren}(\overset{(0)}{k})^2 = 0$	$A_1^{ren}((\overset{(0)}{k})^2) = 0$
198, Fig. 8.9, the right leg of the graph	little right-arrow	little left-arrow
202, formulas (8.33), (8.34)	coefficient $\frac{\lambda_0^2}{12(2\pi)^8}$	without this coefficient
213, 4th line from the top	... the pair (λ_0, m_0^2)	... the pair (λ, m^2)
234, formula (10.14)	$\tilde{U}(\sigma_0, L(\Lambda)a)$	$\tilde{U}(\sigma_0, \hat{L}(\Lambda)a)$
234, 3rd formula from the bottom	$\frac{\partial L(\Lambda)^\nu{}_\mu}{\partial \omega^{\rho\lambda}} = \dots$	$\frac{\partial L(\Lambda)^\nu{}_\mu}{\partial \omega^{\rho\lambda}} \Big _{\omega=0} = \dots$
237, 3rd line from the bottom	... which $e^{i\chi(\Lambda)} = 1$ which one can choose $e^{i\chi(\Lambda)} = 1$.
316, Fig.13.4(a)	$p + g$	$p + q$