# Statistical Approach to Quantum Field Theory: An Introduction Andreas Wipf

# Corrections to 2nd edition

# Introduction

page 3, line 10: For example, many . . .  $\rightarrow$  Many . . . 2 lines below: on may  $\rightarrow$  one may

#### Chapter 2

line after (2.9): observables on through  $\rightarrow$  observables through page 15, last equation:  $im(z_k - z_{k+1}) \rightarrow \Im(z_k - z_{k+1})$ 

#### Chapter 7

line 51 in program code: endfor; spotts17  $\rightarrow$  endfor;

### Chapter 15

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page 416, second equation in (15.85): (D_{\mathbf{w}}D_{\mathbf{w}}^{\dagger}) \mapsto (D_{\mathbf{w}}D_{\mathbf{w}}^{\dagger})

pate 417, eq. (15.87): D_{\mathbf{w}}^{\dagger} \mapsto D_{\mathbf{w}}^{\dagger}

page 422, eq (15.101): (1+\gamma^{\mu})U_{y,-\mu}\delta_{x,y-e_{\mu}} + (1-\gamma^{\mu})U_{y,\mu}\delta_{x,y+e_{\mu}} \mapsto

(r+\gamma^{\mu})U_{y,\mu}\delta_{y,y+e_{\mu}} + (r-\gamma^{\mu})U_{y,-\mu}\delta_{x,y-e_{\mu}}

page 423, in eq. (15.102): \sum_{x,\mu} (\bar{\psi}_{x-e_{\mu}}(r+\gamma^{\mu})U_{x,-\mu}\psi_{x} + \bar{\psi}_{x+e_{\mu}}(r-\gamma^{\mu})U_{x,\mu}\psi_{x}) \mapsto

\sum_{x,\mu} (\bar{\psi}_{x+e_{\mu}}(r+\gamma^{\mu})U_{x,\mu}\psi_{x} + \bar{\psi}_{x-e_{\mu}}(r-\gamma^{\mu})U_{x,-\mu}\psi_{x})
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#### Chapter 17

page 475: 4. line from below: continuum model  $\rightarrow$  continuum models one line below: of the fermion determinant  $\rightarrow$  of fermion determinants page 481, third line: they asymptotically  $\rightarrow$  they are asymptotically page 491, integrand of (17.68): ...  $K_L^{d-1}(t)$ ,  $\mapsto$  ...  $K_L^{d-1}(t)$  e<sup> $-t\rho^2$ </sup>, page 494, integrand of (17.83): ...  $K_L^{d-1}(t)$ ,  $\mapsto$  ...  $K_L^{d-1}(t)$  e<sup> $-t\sigma^2$ </sup>, page 496, line below (17.90):  $\varepsilon_p \mapsto \varepsilon_p$  page 504, expression on left hand side of eq (17.112):

$$\prod_{n} \left( (\omega_n - i\mu_v)^2 + \varepsilon_{\mathbf{p}}^2 \right) \mapsto \prod_{n} \frac{(\omega_n - i\mu_v)^2 + \varepsilon_{\mathbf{p}}^2}{\omega_n^2}$$

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after (17.115): by using \cosh(\pi z) = \dots \to \text{by} using \log \cosh(\pi z) = \dots page 515, caption of Fig 17.8: The values at the origin \to The value at the origin page 539, missing bracket in equation in problem 17.5: \langle (\psi\psi)(x)(\bar{\psi}\psi(y)) \mapsto \langle (\psi\psi)(x)(\bar{\psi}\psi)(y) \rangle page 541, problem 17.9: \rho_{mn}(x) \mapsto \varrho_{mn}(x)
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# References

reference 1.: **3**, 91 (1978)  $\mapsto$  **3**, 91 (1958)