

# Error Log 'Condensed Matter Field Theory, 2nd edition'

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## Chapter 2

- ▷ p49 below (2.16): replace  $\langle \mu, \mu' | \hat{\mathcal{O}}_2 | \lambda, \lambda' \rangle \rightarrow \frac{1}{2} (\langle \mu | \otimes \langle \mu' |) | \hat{\mathcal{O}}_2 (| \lambda' \rangle \otimes | \lambda \rangle)$ . (I. Gruzberg, Jan. 11).
- ▷ p58, formula for  $\hat{V}_{ee}$  above (2.26): replace  $a_{j\sigma} a_{j'\sigma'} \rightarrow a_{j'\sigma'} a_{j\sigma}$ , (I. Gruzberg, Jan. 11).
- ▷ p60 exercise: replace  $\sigma \rightarrow \boldsymbol{\sigma}$  for clarity.
- ▷ p87 (b) remove  $\alpha$  from term in square brackets in  $(\exp[\dots])$ , (I. Gruzberg, Jan. 11).
- ▷ p92–p94, first equation (the one involving  $\hat{H}_{12}$ ): in all expressions replace  $V_{\mathbf{k}} V_{\mathbf{k}'}^* \rightarrow V_{\mathbf{k}}^* V_{\mathbf{k}'}$ .  
p94 last equation: replace  $V_{\mathbf{k}} V_{\mathbf{k}'}^* \rightarrow V_{\mathbf{k}}^* V_{\mathbf{k}'}$  and change  $\mathbf{k} \leftrightarrow \mathbf{k}'$  in second term in the sum.
- ▷ p161 biographical box: Grassmanns first name was Günther, not 'Gnther'.

## Chapter 3

- ▷ pp136 replace  $\hat{S}^x \rightarrow \hat{S}_1, \hat{S}^y \rightarrow \hat{S}_2, \hat{S}^z \rightarrow \hat{S}_3$ .

## Chapter 4

- ▷ below Eq. (4.43)  $\psi = (\psi_-, \psi_+)^T$ .
- ▷ last line of p174 change  $\psi_+ \leftrightarrow \psi_-$ .
- ▷ (3.49) multiply r.h.s. by factor  $S^{-1}$ . Two lines below (3.50) remove factor  $S$  from r.h.s. then read 'i.e.  $\mathbf{n}$  is a unit vector ...'.

## Chapter 5

- ▷ p196 below 5.4 '... we have generalized Eq. (5.3) ...'
- ▷ p207 first two formulas: ignore the ',,'s following the  $\int$ -signs.

## Chapter 7

- ▷ Figure 7.4  $C^-$  in bottom part of figure must be  $C^+$ .

## Chapter 9

- ▷ Heading of section 9.2 should read ' $\theta$ -terms', 17.9.10.
- ▷ p496, forget the  $x$  in front of the abstract, 17.9.10.