

**Known misprints in *Advanced Condensed Matter Physics* by L. M. Sander**

As of: 16 December 2009

Many thanks to my students and others who have found these. If you find more, please send an email to lsander **at** umich.edu.

p 3. Before Eq. 1.9:

mass is is -> mass is

p 4 After Eq. 1.13 the Coulomb interaction :

$$V(r) = Zq_1q_2/r \rightarrow V(r) = Z_1Z_2 q_1q_2/r$$

p 14 Eq. 2.14, the denominator should be

$$4k_B(T-T_c)$$

p 17 Figure caption

$$V_{\min} = \varepsilon \rightarrow V_{\min} = -\varepsilon$$

p 35 Last full line of text:

sum in Eq. (3.19) -> sum in Eq. (3.18)

p. 38 Huyghens should be Huygens

p. 39 Thompson should be Thomson

p. 48 We are in a homogeneous system, so assume  $p(\mathbf{r}, \mathbf{s}) = p(\mathbf{r}-\mathbf{s})$ .

p. 56 Before Eq. (4.4) should be

[010] surface

p. 62 Second line should be inverted, i.e.

$$k_B T_R \sim \beta_o a / \log(z-1)$$

p. 63 After Eq. (4.19) the derivative should be partial,

$$\partial r / \partial \theta$$

p. 77 Eq. (5.14) last term should contain

$$(R_s - R_{s'})$$

last subscript is  $s'$  not  $s''$

p. 78 After Eq. 5.21

For example, if  $B = 2..$

not b

p. 79 Eq. 5.24 should read

$$(\alpha/2)[u_s - u_{s+1}]^2$$

the bracket is squared

p. 79 Eq. 5.31, left-hand side should be

$$\omega^2/\alpha$$

i.e, no 2 on LHS

p. 81 Equations 5.32, 5.33 the summation variables should be s'.

p. 82 Eq. 5.35, the second term should be  $-\mathbf{k}\cdot\mathbf{R}$ .

p. 83 End of item (i): should read:

Define  $\mathbf{k} = \sum_j m_j \mathbf{b}_j$ ; the  $\mathbf{b}$ 's were defined in Section 3.2.3. This gives

p. 88 Second line should be  $\alpha_i$

p. 92 First line of Eq. 5.67 missing right parenthesis.

p. 96 Right hand side of Eq. (5.89):

second line  $\sqrt{n_{\mathbf{k},\lambda} + 1} |\dots, n_{\mathbf{k},\lambda} + 1, \dots\rangle$

third line  $\sqrt{n_{\mathbf{k},\lambda}} |\dots, n_{\mathbf{k},\lambda} - 1, \dots\rangle$

p. 97 Right hand side of Eq. (5.93) should be multiplied by  $m$ .

p. 100 First line of Eq. (5.104) should have  $(2\pi)^3$  in denominator.

p. 104 Subscript  $j$  missing in first line of Eq. (5.123)

p. 113 Problem 6 b) should read

for  $T \gg \Theta_D$  ...

p. 119 Eq. 6.27 the denominator should be

$$\pi^2 \hbar^3$$

last power is 3.

p. 135 Problem 2, last line should contain

$$\sin(k_F R) - k_F R$$

not lower case r.

p. 137 Problem 7 the integral is equal to  $\pi^2/6$ .

p. 147 Eq. 7.22, first line

$\mathbf{p}$  should be  $\mathbf{k}$

p. 225 Problem 9.4, the equation for  $E_o$  should read:

$$E_o = (3/5)N_+ E_F^+ - N_+ \mu_B H + (3/5)N_- E_F^+ + N_- \mu_B H$$