

# Errata to “The Framework of Plasma Physics”

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- Ch. 1, p. 10, paragraph 3: Interchange “strongly” and “weakly” (The weakly and strongly coupled cases correspond to large and small  $\Lambda$  respectively).
- Ch. 2, p. 25, paragraph 2: Change “fields” to “field.”
- Ch. 2, p. 28, paragraph 2: Change  $\mathbf{b}$  to  $\mathbf{n}$  in the term between the equal signs in (2.39) and insert minus signs on right-hand side of (2.39).
- Ch. 2, p. 46, problem 6: Replace  $\mathbf{r}$  with  $\hat{\mathbf{r}}$  in the numerator of the monopolar field ( $\mathbf{B} = B_0 \frac{\hat{\mathbf{r}}}{r^2}$ ).
- Ch. 3, p. 83, paragraph 2: Replace “equations” by “temperatures”
- Ch. 4, p. 109, paragraph 1: replace “when the product  $PRL = 0$ ” with “when the quotient  $P/S = 0$ .” Further in the same paragraph, replace “The remaining two solutions,  $R = 0$  and  $L = 0$ ” with “The remaining two solutions,  $R = \infty$  and  $L = \infty$ ” and “the electric field vanishes for  $RL = 0$ ” by “the electric field vanishes for  $RL = \infty$ .”
- Ch. 4, p. 111, paragraph 2: Replace “Cyclotron” by “cyclotron”
- Ch. 4, p. 119, paragraph 1: Replace “Electric” by “electric.”
- Ch. 4, p. 123, paragraph 1: Replace “Shear-” by “shear-”
- Ch. 4, p. 124, bottom of page: Move “Exercises” to top of p. 126
- Ch. 5, p. 145, last paragraph: Replace “Chapter 4” with “Chapter 8.”
- Ch. 5, p. 146, first line: Replace “the slowing-varying guiding-center position” by “the slowly-varying guiding-center position”

- Ch. 5, p. 154, last line of paragraph 0: Insert “be” in “can be incorporated into the drift model.”
- Ch. 5, p. 156, equation above (5.66): Insert a “ $\nabla$ ” in front of the  $T_i$  to get  $-[(\mathbf{b} \times \nabla T_i) \cdot \nabla n]/Ben + \dots$
- Ch. 5, p. 170, problem 1: Replace  $10^{16}$  ions/m<sup>3</sup> by  $10^{22}$  ions/m<sup>3</sup>.
- Ch. 5, p. 171, problem 5: Insert a minus sign in front of  $\mathbf{V} \times \mathbf{B}$ : the problem should read “ $-\mathbf{V} \times \mathbf{B} = \mathbf{E} - \frac{\nabla p_i}{en}$ ”
- Ch. 6, p. 175, Eq. (6.3): Insert a dot (time derivative) over the  $z_n$  multiplying the partial derivative and below this equation replace “ $\mathbf{z} = (\mathbf{v}, \mathbf{a})$ ” by “ $\mathbf{z} = (\mathbf{x}, \mathbf{v})$ .”
- Ch. 6, p. 176, Eq. (6.9)-(6.13): Insert a dot over every occurrence of  $\mathbf{z}$ . For example, The correct form for equation (6.15) should read: “ $\partial_t f + \nabla_6 \cdot (\dot{\mathbf{z}}f) = C$ .”
- Ch. 6, p. 176, below Eq. (6.7): replace “Note that we have assumed in (6.7)...” by “Note that we have assumed in (6.3)...”
- Ch. 6, p. 205, below eq. 6.7: replace “ $\zeta^{-2} + O(\zeta^{-3})$ ” by “ $\zeta^{-3} + O(\zeta^{-5})$ ”.
- Ch. 6, p. 209, paragraph 2: the “ $v_\perp$ ” in the equation following (6.79) should be boldface.
- Ch. 6, p. 210, paragraph 2: three occurrences of “ $\rho$ ,” in (6.87) and below (6.88) should all be boldface.
- Ch. 6, p. 211, paragraph 1: three occurrences of “ $\rho$ ,” in (6.89) and on the left-hand side of the equation following (6.89) should all be boldface.
- Ch. 8, p. 271, Eq. (8.32) and p. 273, Eq. (8.37): Change the sign of the  $v_\parallel E_I$  term from - to +.