

ERRATA

Glenn S. Smith, *An Introduction to Classical Electromagnetic Radiation*,
Cambridge University Press, 1997.

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Page	Line, Eq., Fig., or Table	Correction
ix	Section 6.2.1	“velolcity” should be “velocity”
35	Lines 18 & 19 in Sec. 1.3.1	Figure 18b should be Figure 1.18b
80	Eq. (1.150)	Replace one of the $1/\Delta y^2$ by $1/\Delta z^2$
121	Fig. P1.9	$\vec{\rho}_{sy}\hat{y}$ should be $\rho_{sy}\hat{y}$ in two places
146	4 th Eq. on Pg.	S_{0t}/S_{0i} should be S_0^t/S_0^i
169	Ref. [18]	<i>Telegraphy</i> should be <i>Telegraphy and Telephony</i>
201	Fig. 3.12b	Label on vertical axis, Im should be -Im
213	Eq. (3.93) & Footnote 8	The = sign after $dk_x dk_y$ should be replaced by $\rightarrow$
219	Line 12	Change “variables” to “coordinates”
224	Fig. 3.24	Label on vertical axis, $\vec{E}_r$ should be $\vec{E}^r$ in two places
235	Eq. (3.133)	Upper limit on integration, $\pi/2$ should be 2π
241	Eq. (3.143)	On the right, change $p > 0$ to $\text{Re}(p^2) > 0$ This error occurs in the table of integrals, Ref. [22].
256	Eq. for $\vec{E}_y(\vec{r})$	$(r-z)\pi$ should be $(r-z)/\pi$
269	Eq. (4.12)	Under first square root, r'^2 should be r'^2
288	Eq. (4.52)	$D_A(\hat{k}_i, \hat{k}_i)$ should be $D_A(\hat{k}'_i, \hat{k}_i)$ and the following statement should be added: in which $\hat{k}'_i = \vec{k}_{in} - \vec{k}_{it}$ with $\vec{k}_{it}$ and $\vec{k}_{in}$ the normal and tangential components of $\hat{k}_i$.
293, & 314	Eq. (4.66), Eq. (4.67), & Prob. 4.5b	Because $\vec{r} = r\hat{k}_i$, the term in the exponents should be replaced: $j\vec{k}_i \cdot \vec{r} = jk_o r$.
307	Table 4.4	In first line, $\hat{R}[$ should be $\hat{R} \times [$
334	Fig. 5.5b	Remove the black bar in front of the 0.4
349	Eq. (5.138)	Interchange the = and $\approx$ signs

402	Eq. (6.115)	Remove – sign from right-hand side
425	4 th Eq. on pg.	$\sin^2[\cos\theta_c + \Delta\theta(t)]$ should be $\sin^2[\theta_c + \Delta\theta(t)]$
434	35 th Line	$(\beta > 1)$ should be $(\beta_n > 1)$
459	Eq. (7.30) Eq. (7.32)	In the integral on the left-hand side, $d\Omega$ should be $r^2 d\Omega$
460	Fig. 7.3	$\hat{t}$ should be $\vec{t}$
465	21 st Line	Figure 7.3c should be Figure 7.4c
508	Eq. (7.140)	As written, the equation applies for real vectors $\vec{p}$ and $\vec{m}$. The most general form is $\vec{S}_c^{sr}(\vec{r}) = \frac{k_o^4 c}{32\pi^2 \epsilon_o r^2} \left\{ \hat{r} \times \vec{p} ^2 + \frac{1}{c^2} \hat{r} \times \vec{m} ^2 + \frac{2}{c} \text{Re}[\hat{r} \cdot (\vec{p} \times \vec{m}^*)] \right\} \hat{r}$
525	Fig. 7.48b	I_t should be I^t
528	3 rd Line from bottom	$\vec{E}_i$ should be $\vec{E}_o^i$
529	Eq. (7.205)	Third line, $\cos\gamma \sin\theta \cos\gamma$ should be $\cos\gamma \sin\theta \cos\theta$
530	10 th Line from bottom	insert “per unit wavelength” after the word “shown”
535	Eq. (7.213)	Change $= N$ to $\approx N$, in the last line of the Eq., and change the two sentences after the Eq. to read: In the last line, we have recognized that, due to the random nature of φ_n and φ_m , the double sum is as likely to be a positive number as a negative number. Thus, when we consider a large number of independent trials, the “average” or “expected value” for the double sum tends to 0.
536	Footnote 40	In the last Eq., N_v should be N_V
539	Ref. [49]	<i>Complètes</i> should be <i>Complètes</i>
539	Ref. [51]	“Hulbert” should be “Hulburt”
598	4 th Line from bottom	$h/a = 65.8$ should be $h/a = 32.8$
606	Prob. 8.17	"to modeled" should be "to be modeled"
624	Table B.3	In the 6 th entry, $(\nabla\Psi) \times (\nabla\Psi)$ should be $(\nabla\Psi) \times (\nabla\Phi)$