

Errata and Additions to Handbook, 3rd Print
May 12, 2008

p.3, add an entry

Original text

New text Alfvén current $I_A = \frac{ec}{r_e}$ 17.045093 kA

p.27, right column, Reference [16]

Original text M.R. Cleland, M.R.,

New text M.R. Cleland,

p.48, right column, middle of the column

Original text $f = 1.643E_s e^{-(8.5/E_s)}$

New text $f = 1.643 E_s^2 e^{-(8.5/E_s)}$

p.115, right column, 3rd line in Sec.2.4

Original text Alfén current

New text Alfvén current

p.117, Eq.(10)

Original text $-\frac{\epsilon_{\text{edge}}^2}{\beta\gamma r^3}$

New text $-\left(\frac{\epsilon_{\text{edge}}}{\beta\gamma}\right)^2 \frac{1}{r^3}$

p.117, right below Eq.(10)

Original text in a solenoid.

New text in a solenoid, and ϵ_{edge} is normalized edge emittance ($4\beta\gamma\epsilon_{\text{rms,N}}$ if Gaussian).

p.117, Eq.(12)

Original text $+\frac{3\epsilon_{\text{edge}}^2}{\beta\gamma r_{\text{eq}}^4}$

New text $+\left(\frac{\epsilon_{\text{edge}}}{\beta\gamma}\right)^2\frac{3}{r_{\text{eq}}^4}$

p.170, middle of left column

Original text Artificial resonance from local oscillating field [4,5]

New text Artificial resonance from local oscillating solenoidal field [4,5]

p.170, Eq.(7)

Original text $B_{\perp} = \hat{B}_{\perp} \cos(\omega t) \rightarrow \epsilon_K = \frac{(1+G\gamma)}{4\pi} \frac{\int \hat{B}_{\perp} ds}{B\rho}; \quad K = n + \frac{\omega}{\omega_0} \quad (7)$

New text For oscillating dipole field $B_{\perp} = \hat{B}_{\perp} \cos(\omega t)$, see [6].

p.170, right column

Original text (add a reference)

New text [6] M. Bai et al, PRE 56, 6002 (1997); M. Bai et al, PRL 80, 4673 (1998); Ya.S. Derbenev and V.A. Anferov, PRST-AB 3, 094001 (2000); S.Y. Lee, PRST-AB 9, 074001 (2006); S.R. Mane, PRST-AB 10, 111001 (2007)

p.231, Under **Diffraction formulae**, first row on the right side of table

Original text $(Z_1^{\perp})_{in} = (Z_1^{\perp})_{out} = \frac{Z_0}{2\pi k} \left(\frac{1}{b^2} - \frac{1}{d^2}\right)$

New text $(Z_1^{\perp})_{in} \approx 0, \quad (Z_1^{\perp})_{out} = \frac{Z_0}{\pi k} \left(\frac{1}{b^2} - \frac{1}{d^2}\right)$

p.237, 4th column on **Circuit Models**

Original text $\frac{1}{\sqrt{3}}$

New text $\frac{1}{2\sqrt{3}}$

p.404, left column, 2nd line from bottom

Original text $H_x = \dots \sin\left(\frac{\pi z}{d}\right)$

New text $H_x = \dots \cos\left(\frac{\pi z}{d}\right)$

p.407, right column, 3rd line under Fig.1

Original text cavit

New text cavity

p.505, Table 1, the row Kick strength

Original text	Kick strength	Tm	3.6	14	88	...
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New text	Kick strength	mT-m	3.6	14	11.6	...
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p.505, Table 1, the row Magnet Length

Original text 2.50

New text 0.25

p.511, under Eq.(3)

Original text multipole order,

New text multipole order ($N = 1$ dipole, $N = 2$ quad, $N = 3$ sextupole, and for $N = 1$, Eq.(3)

reads $B^*(z) = B_r \sum_{v=0}^{\infty} \left(\frac{z}{r_1}\right)^{n-1} \ln\left(\frac{r_2}{r_1}\right) K_n$.

p.517, Ref.[3]

Original text R.D. Schlueter, Mag. Tech. LBNL Pub 754 LBNL (1995) 55

New text R.D. Schlueter, et al, NIM A 395 (1997) 153

p.538, Eq.(33)

Original text $g_{\perp} = \frac{\tanh \pi w}{4b}$

New text $g_{\perp} = \tanh \frac{\pi w}{4b}$

p.572, right column, Eq.(1)

Original text $\omega_{mnv} = [k_{mn}^2 + (\frac{\pi v}{\ell})]^1/2$

New text $\omega_{mnv} = [k_{mn}^2 + (\frac{\pi v}{\ell})^2]^1/2 c$

Subject Index page i

Original text Alfvén current 115

New text Alfvén current 3, 115

Subject Index page ix

Original text [add an entry]

New text Kicker magnets (see Magnets, pulsed)

Subject Index page xi, left column

Original text [add an entry]

New text Magnets, kicker (see Magnets, pulsed)