Errata and Additions to Handbook, 2nd Print
October 22, 2005

p.5, left column, 21-th line from bottom

Original text Oested

New text Oersted

p.18, right column, Eq.(6)

Original text $\rho = \left[\frac{a_u}{4\gamma} F_1^2(a_u) \frac{\Omega_p}{\omega_u}\right]^{2/3}$

New text $\rho = \left[\frac{a_u}{4\sqrt{2}\,\gamma} F_1(a_u) \frac{\Omega_p}{\omega_u}\right]^{2/3}$

p.62, right column, 3rd line above Eq.(1)

Original text dipole fringe fields

New text fringe fields

p.64, left column, 5th line

Original text For $\pi/3 \leq \mu \leq 2\pi/3$,

New text For $\mu \geq \pi/3$,

p.119, right column, 1st line after Eq.(1)

Original text above transition

New text below transition

p.119, right column, 8-th line after Eq.(1)

Original text Below transition

New text Above transition

p.138, left column, Eq.(18)

Original text $\epsilon = \frac{1+2\pi\xi_0 \cot\mu_0}{1+4\pi\xi_0 \cot\mu_0 - 4\pi^2\xi_0^2}\epsilon_0 ...$

New text $\epsilon = \frac{1+2\pi\xi_0 \cot\mu_0}{\sqrt{1+4\pi\xi_0 \cot\mu_0 - 4\pi^2\xi_0^2}}\epsilon_0 ...$

p.150, right column, the paragraph after Eq.(3)

Original text [add a sentence]

New text In Eq.(3), $\parallel$ and $\perp$ refer to the design orbit, not the instantaneous particle trajectory.

p.183, left column, Eq.(1)

Original text $\vec{A}(P,t) = \frac{1}{4\pi\epsilon_0 c}\frac{e}{R}\frac{\vec{\beta}}{1+\hat{n}\,\beta}\Big|_{\rm r}, \quad \phi(P,t) = \frac{1}{4\pi\epsilon_0}\frac{e}{R}\frac{\beta}{1+\hat{n}\,\vec{\beta}}\Big|_{\rm r}$

New text $\vec{A}(P,t) = \frac{1}{4\pi\epsilon_0 c}\frac{e}{R}\frac{\vec{\beta}}{1+\hat{n}\cdot\vec{\beta}}\Big|_{\rm r}, \quad \phi(P,t) = \frac{1}{4\pi\epsilon_0}\frac{e}{R}\frac{1}{1+\hat{n}\cdot\vec{\beta}}\Big|_{\rm r}$

p.183, left column, Eq.(2)

Original text $\frac{{\rm d}P(t)}{{\rm d}\Omega} = ...$

New text $\frac{{\rm d}P(t_r)}{{\rm d}\Omega} = ...$

p.183, right column, 2nd line

Original text β and $\hat{n}$

New text $\vec{\beta}$ and $\hat{n}$

p.183, right column, Eq.(10)

Original text $\left(\frac{m_{\rm e}}{m_{\rm p}}\right)$

New text $\left(\frac{m_{\rm e}}{m_{\rm p}}\right)^4$

p.188, right column, bottom of page

Original text $= \frac{55\alpha c(\hbar c)}{24\sqrt{3}}\frac{\gamma^7}{|\rho|^3}$

New text $= \frac{55\alpha c(\hbar c)^2}{24\sqrt{3}}\frac{\gamma^7}{|\rho|^3}$

p.189, right column, 1st line after Eq.(24)

Original text $(\nu_x + m\nu_y + q)$

New text $(\nu_x + m\nu_y - q)$

p.189, right column, two lines above Eq.(25)

Original text $\Delta = \nu_x + \nu_y - q$

New text $\Delta = \nu_x - \nu_y - q$

p.190, right column, Eq.(7)

Original text

$$\lambda_i = \frac{\lambda_{\rm p}}{2\gamma^2 i}\left[1 + \frac{1}{2}K^2 + \gamma^2(\theta^2 + \psi^2)\right] \qquad (7)$$

where θ, ψ are the horizontal and vertical observation angle with respect to the axis. The wavelength for $\theta = \psi = 0$ is

New text

$$\lambda_i = \frac{\lambda_{\rm p}}{2\gamma^2 i}\left[1 + \frac{1}{2}K^2 + \gamma^2\theta^2\right] \qquad (7)$$

where θ is the observation angle with respect to the axis. The wavelength for $\theta = 0$ is

p.191, left column, numerator of the last equation for v

Original text $2\bar{\beta}K^2\gamma\theta\cos\varphi$

New text $2\bar{\beta}K\gamma\theta\cos\varphi$

p.254, right column, Ref[1]

Original text [add a supplemental reference]

New text http://mafurman.lbl.gov/LBNL-53553.pdf

p.317, left column, one line after Eq.(4)

Original text $\sigma_{cr} = \cdots\left(\frac{t}{L}\right)^2$,

New text $\sigma_{cr} = \cdots\left(\frac{t}{R}\right)^2$,

p.319, 2 lines above Eq.(3)

Original text Q [gpm]

New text Q [gpm – gallons per minute]

p.443, left column, Ref.[1]

Original text [add a supplemental reference]

New text http://mafurman.lbl.gov/SSC-N-564.pdf

p.465, Table 1, 5th row

Original text Kick strength, mTm

New text Kick strength, Tm

p.575, numerator of Eq.(4)

Original text $\int [S_{21,\mathrm{REF}}(t) - S_{21,\mathrm{DUT}}(t)]dt$

New text $\int S_{21,\mathrm{REF}}(t)[S_{21,\mathrm{REF}}(t) - S_{21,\mathrm{DUT}}(t)]dt$

p.603, right column, Eq.(3)

Original text $... \approx 50E_0^2[\mathrm{m}^2\mathrm{Gy/h \cdot kw}], ...$

New text $... \approx 50\,[\mathrm{m}^2\mathrm{Gy/h \cdot kW}], ...$