Errata to PM45: *Optical Imaging and Aberrations Part I: Ray Geometrical Optics*

p. 86, third line:

\[ C_3 = -0.16667 \]

p. 105, first line after Eq. (2-23):

“is equal to the solid angle of an annulus of angular width \( d\theta \) on a unit sphere centered at the surface center.”

p. 111, line 3:

\[ \cos^4 \delta \text{ as given by Eq. (2-42).} \]

p. 119, second line after Eq. (2-71):

“at the axial object point \( P_0 \) and \( \theta \) is the angle if the chief ray in the object space.”

p. 164, Table 3-6, fourth column:

| 3 | 1 | \( a_{31} \rho^2 \cos \theta \) | Primary coma |

p. 168, line 2:

“The polynomials…”

p. 168, Eq. (3-57):

\[ \cos^l \theta = \frac{1}{2^l} \sum_{q=0}^{l} \frac{l!}{q!(l-q)!} \cos(l-2q)\theta. \]

p. 209, Eq. (4-14):

\[ \left( x_c, y_c \right) = \frac{2F}{\pi} \iint \left( \frac{\partial W}{\partial \xi}, \frac{\partial W}{\partial \eta} \right) d\xi d\eta. \]

p. 215, Figure 4-5:
p. 230, Figure 4-15:

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(\Delta S = \frac{h^2}{2} \left( \frac{1}{R_0} - \frac{1}{R - S} \right)
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p. 447, Equation (7-20):

\[
(a_{ap})_{ap} = \frac{M_2 \left( M_2^2 - 1 \right) - \left( f'/f \right)}{4 m_2^3 f'^3} \Delta
\]

p. 451, Equation (7-41):

\[
a_{sc3} = \frac{1}{32 m_2^4 f_1^3} \left\{ 1 - e_1^2 + \frac{f_2'}{f_1'} \left( \frac{M_2 - 1}{M_2} \right)^4 \left[ e_2^2 - \left( \frac{M_2 + 1}{M_2 - 1} \right)^2 \right] \right\}
\]