

Erratum: “A fast, angle-dependent, analytical model of CsI detector response for optimization of 3D x-ray breast imaging systems” [Med. Phys. 37, 2593–2605 (2010)]^{a)}

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We would like to correct an omission in Table II and a typographical error in Eq. (A34) of our 2010 paper describing an analytical model for calculating CsI detector responses.¹ In the original publication, the units were not included for the coefficients provided in Table II. The corrected table is provided below. In addition, there was a sign error in Eq. (A34). The correct equation is provided below.

TABLE II. Best-fit coefficient values for a 25 keV monochromatic beam, 150 μm thick CsI screen, and angles in the range of 0° – 45° . These coefficients should be valid for any detector location as long as the same screen model applies. The results reported here correspond to the PRFs shown in Fig. 9.

Coefficient	Best-fit value (25 keV, 150 μm CsI)
p	0.000 879 μm^{-1}
$a_0(E)$	1.108×10^{-5} μm^{-2}
$a_1(E)$	0.014 29 μm^{-1}
b_0	0.03%/ μm
b_1	37.84%
g_0	0.0334
g_1	13.32 μm

We hope these corrections will help readers to reproduce the point response functions presented in the paper and we regret the error.

$$S_2 \equiv \int_0^{z_{\max}} \frac{z^2}{mz^2 + nz + s} dz \quad (\text{A33})$$

$$= \left[\frac{z_{\max}}{m} - \frac{n}{2m^2} [\ln(mz_{\max}^2 + nz_{\max} + s) - \ln(s)] \right] \quad (\text{A34})$$

$$+ \frac{n^2 - 2sm}{m^2 \sqrt{4sm - n^2}} * \left[\tan^{-1} \left(\frac{2mz_{\max} + n}{\sqrt{4sm - n^2}} \right) - \tan^{-1} \left(\frac{n}{\sqrt{4sm - n^2}} \right) \right], \quad (\text{A35})$$

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