Errata for
Photon Beam Diffusion:
A Hybrid Monte Carlo Method for Subsurface Scattering

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Abstract

This document contains errata for the publication Photon Beam Diffusion: A Hybrid Monte Carlo Method for Subsurface Scattering. *The errors are corrected in the online versions of the paper, but not in the version hosted in the Eurographics library.*

1. Correction to Diffuse Single Scattering (Section 3.5)

Equation (13) already contained the extended beam source Q, and was then falsely multiplied by Q again when defining $f(\vec{x},\vec{\omega},t_i)$. The correct expression, not containing Q, for Equation (13) should be

$$r^{(1)}(\vec{x},\vec{x}_r(t)) = \frac{f_s(\vec{\omega}\cdot\vec{\omega}_{\vec{x}_r\vec{x}})e^{-\sigma_t(d_r(t))}F_t(\theta_o,\eta)F_t(\theta_i,1/\eta)\cos\theta_o}{d_r^2(t)} \quad (13)$$

Note also that the source function for single scattering should use un-reduced scattering parameters, hence we define $f(\vec{x},\vec{\omega},t_i) = r^{(1)}(\vec{x},\vec{x}_r(t_i))\,Q^{(1)}(t_i)$ with $Q^{(1)}(t) = \alpha\sigma_t e^{-\sigma_t t}$.