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Corrigendum: The Green's function for the radiative transport equation in the slab geometry

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In the previously published paper [1], we have computed the energy density of electromagnetic radiation $u(\mathbf{r})$ by the analytical method developed in the paper (the method of rotated reference frames (MRRF)) and by the Monte Carlo method. The results were compared in figure 9 of [1]. The figure displays a discrepancy between the two curves that we attributed to unknown imprecisions inherent in both methods. However, we have discovered an error in the computer code which was used to produce the MRRF curve. When this error was corrected, much better agreement was obtained. The corrected figure is presented below. We thus conclude that,

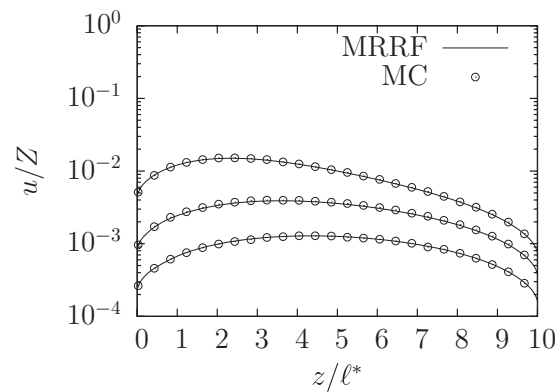


Figure 9. Density $u(z, \rho)$ computed by the MRRF and by Monte Carlo simulations for a slab with $L = 10\ell^*$. From top to bottom, the curves correspond to $\rho = 4\ell^*$, $\rho = 7\ell^*$ and $\rho = 10\ell^*$. Normalization factor $Z = I_0/(\ell^*)^2$.

for the parameters considered, the MRRF agrees with Monte Carlo simulations with good precision. This finding is consistent with the recent paper of Liemert and Kienle [2].

We note that the other figures or simulation data in [1] have not been affected by the error mentioned above.

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References

- [1] Machida M, Panasyuk G Y, Schotland J C and Markel V A 2010 The Green's function for the radiative transport equation in the slab geometry *J. Phys. A: Math. Theor.* **43** 065402
- [2] Liemert A and Kienle A 2012 Light transport in three-dimensional semi-infinite scattering media *J. Opt. Soc. Am. A* **29** 1475–81