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Erratum: Implementing the Fast Multipole Method in Three Dimensions[1]

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Equation (11) in this paper contained a typographical error. The correct result is

$$\sum_{n,o,p\neq 0,0,0} r_{nop}^{-(l+1)} Y_{lm}(\Omega_{nop}) = \sum_{n,o,p\neq 0,0,0} Y_{lm}(\Omega_{nop}) \frac{2^{l+2}}{\sqrt{\pi}(2l+1)!!} \times \left(\frac{I_l(\alpha r_{nop})}{r_{nop}^{l+1}} - \frac{\alpha^{2l+1} r_{nop}^{l}}{2} \exp(-\alpha^2 r_{nop}^2) + \frac{(2l+1)\, i^l \pi^{l-1/2} r_{nop}^{l-2}}{4} \exp\left(-\frac{\pi^2 r_{nop}^2}{\alpha^2}\right) \right)$$

where $\mathbf{r}_{nop} = n\hat{x} + o\hat{y} + p\hat{z}$, and n, o, and p are integers.

The conclusions and results of the paper are unaffected. A computer program subsequently distributed for the Fast Multipole Method has always been correct.

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