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## Corrigendum

## Corrigendum to “Rectangular dipoles in the discrete dipole approximation” [J. Quant. Spectrosc. Radiat. Transfer 156 (2015) 67–79]

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In the following we correct a few typographical errors in paper [1]. ~~First, there was a sign error in Eq. (5) – it should read~~

$$\bar{\mathbf{L}}(\partial V_0, \mathbf{r}) = \oint_{\partial V_0} d^2 r' \frac{\hat{\mathbf{n}} \cdot \hat{\mathbf{R}}}{R^3} \quad (5)$$

~~This error propagated from the previous publication [2] that has been recently corrected [3].~~

Second, in Eq. (15) a minus should be removed before the first integral and all arguments  $\mathbf{r}$  of  $\bar{\mathbf{L}}$  should be replaced by  $\mathbf{r}_i$ . The correct expression is

$$V_d \bar{\mathbf{G}}_{ii}^{\text{st}} = \int_{V_i \setminus V_0} d^3 r' \bar{\mathbf{G}}^{\text{st}}(\mathbf{r}_i, \mathbf{r}') - \frac{4\pi}{3} \bar{\mathbf{I}} = -\bar{\mathbf{L}}(\partial(V_i \setminus V_0), \mathbf{r}_i) - \bar{\mathbf{L}}(\partial V_0, \mathbf{r}_i) = -\bar{\mathbf{L}}(\partial V_i, \mathbf{r}_i), \quad (15)$$

where the second equation is based on the following corollary of the divergence theorem

$$\forall U, \mathbf{r} \notin U: \int_U d^3 r' \bar{\mathbf{G}}^{\text{st}}(\mathbf{r}, \mathbf{r}') = -\bar{\mathbf{L}}(\partial U, \mathbf{r}),$$

implicitly based on ~~the corrected~~ Eq. (5).

Finally, on p. 71 (second column, line 14) “filteredcoupled dipoles” should read “filtered coupled dipoles” and the bibliographic entry for Ref. [36] should specify that it is available from ([http://a-dda.googlecode.com/svn/tags/re1\\_1.3b4/doc/manual.pdf](http://a-dda.googlecode.com/svn/tags/re1_1.3b4/doc/manual.pdf)).

### References

- [1] Smunev DA, Chaumet PC, Yurkin MA. Rectangular dipoles in the discrete dipole approximation. J Quant Spectrosc Radiat Transf 2015;156:67–79.
- [2] Yurkin MA, Hoekstra AG. The discrete dipole approximation: an overview and recent developments. J Quant Spectrosc Radiat Transf 2007;106:558–89.
- [3] Yurkin MA, Hoekstra AG. Corrigendum to “The discrete dipole approximation: an overview and recent developments” [J. Quant. Spectrosc. Radiat. Transfer 106 (2007) 558–589]. J Quant Spectrosc Radiat Transf <http://dx.doi.org/10.1016/j.jqsrt.2015.11.025>; forthcoming.

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