

Corrigenda

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Linear force-free magnetic fields and coronal models

C. J. Durrant

I am grateful to Dr N. Seehafer for drawing attention to the fact that the basis vector for writing linear force-free solutions in spherical geometry is the radius vector \mathbf{r} and not the unit radius vector $\hat{\mathbf{r}}$. In order to correct the results given in Section 3 of Durrant (1989), it suffices to replace the spherical Bessel functions j_l , n_l , h_l by rj_l , rn_l , rh_l . The only effect of this replacement is to change the radial dependence of B_θ and B_ϕ in the limit of large r to $e^{i\alpha r}/r$. Thus the total magnetic density for the exterior volume $r > R$ is unbounded. This result is now consistent with the fact that the cartesian components of \mathbf{B} satisfy the Helmholtz equation.