

## Correction

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## Correction to 'Homogenized boundary conditions and resonance effects in Faraday cages'

D. P. Hewett and I. J. Hewitt

Mathematical Institute, University of Oxford, Oxford, UK

DPH, 0000-0003-3302-2567; IJH, 0000-0002-9167-6481

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- The Neumann boundary conditions (3.6), (3.9), (3.26), (A 11), (A 15), (A 22), (A 27) and (A 31) are applicable only when  $K$  is symmetrical with respect to  $\eta$ . More generally they should be replaced by periodic boundary conditions on  $S = \pm \frac{1}{2}$ .
- Equation (4.25) should read

$$\begin{aligned}\Phi(N, S, s) = & -\frac{\partial \phi_{-1}^{-}}{\partial n}(s) \Phi^{-}(N, S) \\ & - \varepsilon \kappa(s) \frac{\partial \phi_{-1}^{-}}{\partial n}(s) \tilde{\Phi}^{-}(N, S) \\ & - \varepsilon \frac{\partial^2 \phi_{-1}^{-}}{\partial n \partial s}(s) \hat{\Phi}^{-}(N, S) \\ & + \varepsilon \frac{\partial \phi_0^{+}}{\partial n}(s) \Phi^{+}(N, S) \\ & - \varepsilon \frac{\partial \phi_0^{-}}{\partial n}(s) \Phi^{-}(N, S) + \mathcal{O}(\varepsilon^2) \quad (4.25')\end{aligned}$$

- Equations (4.26) and (4.27) should read

$$\begin{aligned}& -(\tau_{-} - \varepsilon \kappa \tilde{\tau}_{-}) \frac{\partial \phi_{-1}^{-}}{\partial n} - \varepsilon \hat{\tau}_{-} \frac{\partial^2 \phi_{-1}^{-}}{\partial n \partial s} \\ & + \varepsilon \sigma_{+} \frac{\partial \phi_0^{+}}{\partial n} - \varepsilon \tau_{-} \frac{\partial \phi_0^{-}}{\partial n} \\ & = \phi_0^{+} + \varepsilon \phi_1^{+} \quad \text{on } \Gamma \quad (4.26')\end{aligned}$$

and

$$-(\sigma_{-} - \varepsilon \kappa \tilde{\sigma}_{-}) \frac{\partial \phi_{-1}^{-}}{\partial n} - \varepsilon \hat{\sigma}_{-} \frac{\partial^2 \phi_{-1}^{-}}{\partial n \partial s}$$

$$\begin{aligned}
 & + \varepsilon \tau_+ \frac{\partial \phi_0^+}{\partial n} - \varepsilon \sigma_- \frac{\partial \phi_0^-}{\partial n} \\
 & = \frac{1}{\varepsilon} \phi_{-1}^- + \phi_0^- + \varepsilon \phi_1^- \quad \text{on } \Gamma
 \end{aligned} \tag{4.27'}$$

- The two lines following equation (4.30) should read:  
 where  $(\nabla^2 + k_*^2)\hat{\phi}_0^+ = f$  in  $\Omega_+$  with  $\hat{\phi}_0^+ = 0$  on  $\Gamma$ , and  $(\nabla^2 + k_*^2)\tilde{\phi}_0^+ = 0$  in  $\Omega_+$  with  $\tilde{\phi}_0^+ = -\partial\psi/\partial n$  on  $\Gamma$ , with both  $\hat{\phi}_0^+$  and  $\tilde{\phi}_0^+$  satisfying the Sommerfeld radiation condition at infinity.
- The line following equation (4.33) should read:  
 where  $\tilde{\phi}_0^-$  is a particular solution of  $(\nabla^2 + k_*^2)\tilde{\phi}_0^- = (I_2/I_1)\psi$  in  $\Omega_-$  with  $\tilde{\phi}_0^- = -\partial\psi/\partial n$  on  $\Gamma$ , and
- Equation (A 18) should read:

$$\begin{aligned}
 \Phi \sim & \mp \frac{1}{2} \varepsilon \kappa A_0^\pm N^2 \pm (A_0^\pm + \varepsilon A_1^\pm) N + A_0^\pm \sigma_\pm + A_0^\mp \tau_\mp \\
 & + \varepsilon A_1^\pm \sigma_\pm + \varepsilon A_1^\mp \tau_\mp \pm \varepsilon \kappa A_0^\pm \tilde{\sigma}_{\pm\mp} \mp \varepsilon \kappa A_0^\mp \tilde{\tau}_{\mp\pm} + \varepsilon \frac{\partial A_0^\pm}{\partial s} \hat{\sigma}_\pm + \varepsilon \frac{\partial A_0^\mp}{\partial s} \hat{\tau}_\mp + \mathcal{O}(\varepsilon^2) \quad (\text{A } 18')
 \end{aligned}$$