

Corrections

Corrections to “An Effective-Current Approach for Hallén’s Equation in Center-Fed Dipole Antennas With Finite Conductivity”

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Index Terms—Carbon nanotube antennas, effective current, Hallén’s integral equation, imperfectly conducting antennas, integral equation methods, method of moments.

We have identified two errors in [1]. Equations (17) and (18) therein should instead read

$$I_{\text{eff}}^{(\infty)}(\rho, z, z_0) = \frac{1}{2i \sin(kz_0)} \sum_{n=-\infty}^{\infty} [f_{n+1} - 2 \cos(kz_0) f_n + f_{n-1}] I_n^{(\infty)} \quad (1)$$

and

$$I_{\text{eff}}(\rho, z, z_0) = \frac{1}{2i \sin(kz_0)} \sum_{n=-(N-1)}^{N-1} [f_{n+1} - 2 \cos(kz_0) f_n + f_{n-1}] I_n \quad (2)$$

respectively, to conform with [2, eqs. (3.14) and (6.3)]. These errors occur only where (17) and (18) are displayed and do not affect the discussion in [1]. All the results presented therein have been obtained with the correct form of the two expressions in question, as given above.

REFERENCES

- [1] T. K. Mavrogordatos, A. Papathanasopoulos, and G. Fikioris, “An effective current approach for Hallén’s equation in center-fed dipole antennas with finite conductivity,” *IEEE Trans. Antennas Propag.*, vol. 67, no. 6, pp. 3680–3687, Jun. 2019.
- [2] G. Fikioris, P. J. Papakanellos, T. K. Mavrogordatos, N. Lafkas, and D. Koulikas, “Eliminating unphysical oscillations arising in Galerkin solutions to classical integral equations of antenna theory: An asymptotic study,” *SIAM J. Appl. Math.*, vol. 71, no. 2, pp. 559–585, 2011.

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