Abstracts

An Improved Floating-Random-Walk Algorithm for Solving the Multi-Dielectric Dirichlet Problem

J.N. Jere and Y.L. Le Coz. "An Improved Floating-Random-Walk Algorithm for Solving the Multi-Dielectric Dirichlet Problem." 1993 Transactions on Microwave Theory and Techniques 41.2 (Feb. 1993 [T-MTT]): 325-329.

An improved floating-random-walk algorithm for solving the multi-dielectric Dirichlet problem is outlined. The improvement is achieved by using statistically generated Green's functions that are calculated before hand and stored as look-up tables. These tables have been used to solve the multi-dielectric Dirichlet problem for an arbitrary two dimensional geometry. The improved algorithm is also compared with the conventional floating-random-walk algorithm and is found to be at least two times more efficient. Results are presented for two types of parallel plate geometries.

❑ Return to main document.