Abstracts

An efficient impedance matrix calculation using the spline-type divided-difference interpolation technique

Sungtek Kahng and Jaehoon Choi. "An efficient impedance matrix calculation using the spline-type divided-difference interpolation technique." 1999 Microwave and Guided Wave Letters 9.7 (Jul. 1999 [MGWL]): 268-271.

In this work, a spline-type divided-difference interpolation scheme is proposed to evaluate the impedance matrix elements in the method of moments (MoM) efficiently. This method is combined with the fast computational method of the basis-expanded and tested Green's functions introduced in a recent literature. The proposed method is applied to analyze the characteristics of a microstrip gap discontinuity and an aperture coupled patch antenna. Numerical results obtained by using this approach are in good agreement with those of other approaches.

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