Abstracts

Multidimensional Cauchy method and adaptive sampling for an accurate microwave circuit modeling

S.F. Peik, R.R. Mansour and Y.L. Chow. "Multidimensional Cauchy method and adaptive sampling for an accurate microwave circuit modeling." 1998 Transactions on Microwave Theory and Techniques 46.12 (Dec. 1998, Part II [T-MTT] (1998 Symposium Issue)): 2364-2371.

This paper presents an effective generic approach for computer-aided design of microwave circuits. We extend the one-dimensional Cauchy method for frequency-response interpolation to a multidimensional Cauchy interpolation, with respect to both frequency and physical dimensions. This paper also demonstrates the feasibility of applying adaptive sampling to the multidimensional rational-function expansion. Three examples, including optimization and Monte Carlo analysis, have been given to verify the validity of the proposed approach.

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