Abstracts

Numerical Steady-State Analysis of Nonlinear Microwave Circuits with Periodic Excitation

C. Camacho-Penalosa. "Numerical Steady-State Analysis of Nonlinear Microwave Circuits with Periodic Excitation." 1983 Transactions on Microwave Theory and Techniques 31.9 (Sep. 1983, Part I [T-MTT]): 724-730.

A new method for determining the steady-state response of nonlinear microwave circuits with periodic excitation is proposed. The method minimizes time-domain calculations by introducing a criterion for selecting the variables to be considered as unknowns and for solving the resulting nonlinear system by a new and efficient algorithm. It has exhibited the capability for handling a large number of harmonics and nonlinearities. To illustrate the generality and usefulness of the method, a pumped diode and a MESFET frequency doubler are analyzed.

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