

Abstracts

Sample-balance analysis of nonlinear autonomous circuits

P.J.C. Rodrigues and D. Mendes, Jr.. "Sample-balance analysis of nonlinear autonomous circuits." 1998 MTT-S International Microwave Symposium Digest 98.3 (1998 Vol. III [MWSYM]): 1615-1618.

This paper presents a robust approach for the analysis of nonlinear microwave autonomous circuits. A new formulation of the Sample-Balance (SB) equation for autonomous circuits completely suppresses the undesirable degenerate (DC) solution. Three techniques are combined to solve the SB equation: "signal synchronization", "harmonic stepping", and pseudo arc-length continuation. An example illustrates the excellent convergence properties obtained.

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