Abstracts

Harmonic-Balance Simulation of Strongly Nonlinear Very Large-Size Microwave Circuits by Inexact Newton Methods

V. Rizzoli, F. Mastri, F. Sgallari and G. Spaletta. "Harmonic-Balance Simulation of Strongly Nonlinear Very Large-Size Microwave Circuits by Inexact Newton Methods." 1996 MTT-S International Microwave Symposium Digest 96.3 (1996 Vol. III [MWSYM]): 1357-1360.

The paper introduces a new approach to harmonic-balance simulation, based on inexact Newton methods and iterative system-solving techniques. Storage and factorization of the Jacobian matrix are avoided, resulting in a dramatic drop of execution time and memory occupation. HB analyses with several tens of thousands unknowns become possible on ordinary workstations.

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