Abstracts

Practical, High Speed Gradient Computation for Harmonic Balance Simulators

J.W. Bandler, Q.J. Zhang and R.M. Biernacki. "Practical, High Speed Gradient Computation for Harmonic Balance Simulators." 1989 MTT-S International Microwave Symposium Digest 89.1 (1989 Vol. I [MWSYM]): 363-366.

We introduce a powerful computational concept which we name the future adjoint sensitivity technique (FAST). FAST combines the efficiency of the exact adjoint sensitivity technique with the simplicity of the conventional perturbation technique. The same concept carries over to a practically implementable Jacobian for fast harmonic balance simulation. Our result promises high speed gradient evaluation essential for yield optimization of nonlinear MMIC circuits by general purpose software.

❑ Return to main document.