Abstracts

Mixed circuit/electromagnetic analysis of radiation from high-speed interconnects

I. Erdin and M. Nakhla. "Mixed circuit/electromagnetic analysis of radiation from high-speed interconnects." 1999 MTT-S International Microwave Symposium Digest 99.3 (1999 Vol. III [MWSYM]): 1305-1308 vol.3.

An efficient method is presented for rigorous analysis of electromagnetic radiation from high-speed interconnects. Based on model reduction techniques, the proposed algorithm incorporates the finite difference time domain (FDTD) method with a circuit level simulator such as SPICE to calculate the near zone radiated emissions from arbitrarily shaped circuit structures involving nonlinear terminations. The proposed method overcomes the numerical stability problems of FDTD due to nonlinear terminations.

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