Abstracts

Multi-level passive order reduction of interconnect networks

R. Khazaka and M. Nakhla. "Multi-level passive order reduction of interconnect networks." 2001 MTT-S International Microwave Symposium Digest 01.2 (2001 Vol. II [MWSYM]): 1155-1158 vol.2.

This paper presents an efficient algorithm for transient simulation of multi-port interconnect networks in the presence of nonlinear terminations. Krylov-subspace order reduction techniques have been shown to provide a significant speed-up in the simulation of interconnect networks. These methods however are far from optimal, and the resulting macromodel contains many redundant poles. In this paper, a passive multi-level reduction technique is presented. The proposed method eliminates the redundant poles, thus resulting in significant CPU cost reduction.

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