Abstracts

Multigrid technique with local grid refinement for solving static field problems [RF circuits]

R. Kulke, Th. Sporkmann and I. Wolff. "Multigrid technique with local grid refinement for solving static field problems [RF circuits]." 1998 MTT-S International Microwave Symposium Digest 98.1 (1998 Vol. I [MWSYM]): 29-32.

A multilevel iteration technique has been developed for solving the Laplace equation of 2-dimensional static field problems in arbitrary layered structures for RF circuit design. Multigrid methods are well accepted in the fields of applied mathematics, but are poorly disseminated in numerical applications of electromagnetic fields. That is why the authors wish to give an introduction to this theory and emphasize the convergence acceleration. The method is verified with measurements of a coplanar capacity line and is compared with conventional solvers.

❑ Return to main document.