Abstracts

Exploitation of Coarse Grid for Electromagnetic Optimization

J.W. Bandler, R.M. Biernacki, S.H. Chen, P.A. Grobelny and R.H. Hemmers. "Exploitation of Coarse Grid for Electromagnetic Optimization." 1994 MTT-S International Microwave Symposium Digest 94.1 (1994 Vol. I [MWSYM]): 381-384.

Direct, optimization-driven electromagnetic design is studied. Focusing upon a double folded stub microstrip filter, we explore design characteristics for coarse grids. EM models: coarse grid (EMC) for fast computations and the corresponding fine grid (EMF) for more accurate simulations are compared. The EMC model, useful when circuit-theoretic models may not be readily available, permits rapid exploration of different starting points, solution robustness, local minima, parameter sensitivities, yield-driven design, and other design characteristics within a practical time frame.

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