Abstracts

A Modified MoL Algorithm with Faster Convergence and Improved Computational Efficiency

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This paper presents an improved algorithm for the method of lines (MoL) which converges much faster than the conventional method. While the error in the MoL is typically o(h^2), the error in the modified MoL is reduced to o(h/sup 4/). Therefore, accuracy can be maintained with a much smaller number of lines leading to reduced matrix sizes and thus accelerating the algorithm considerably. Numerical results obtained for a microstrip line illustrate the advantages of this new idea.

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