Abstracts

Review of Numerical Methods for the Analysis of Arbitrarily-Shaped Microwave and Optical Dielectric Waveguides

S.M. Saad. "Review of Numerical Methods for the Analysis of Arbitrarily-Shaped Microwave and Optical Dielectric Waveguides." 1985 Transactions on Microwave Theory and Techniques 33.10 (Oct. 1985 [T-MTT] (Special Issue on Numerical Methods)): 894-899.

This paper presents are view of the numerical methods for the analysis of the homogeneous and inhomogeneons, isotropic and anisotropic, microwave and optical dielectric waveguides with arbitrarily-shaped cross sections. The characteristics of various methods are compared,and a set of qualittative criteria to guide the selection of an appropriate method for a given problem is proposed. The main approaches discussed are those of point matching, integral equations, finite difference, and finite element.

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