Abstracts

Subspace iteration search method for generalized eigenvalue problems with sparse complex unsymmetric matrices in finite-element analysis of waveguides

J. Arroyo and J. Zapata. "Subspace iteration search method for generalized eigenvalue problems with sparse complex unsymmetric matrices in finite-element analysis of waveguides." 1998 Transactions on Microwave Theory and Techniques 46.8 (Aug. 1998 [T-MTT]): 1115-1123.

In this paper, a numerical method for the robust computation of the number of eigenvalues within a closed contour of a generalized complex eigenvalue problem is presented. As a result of this computation, it is possible to perform a systematic search for the eigenvalues, ensuring that no eigenvalues are forgotten, and to optimize their calculation. Application is made to the finite-element modal analysis of inhomogeneous waveguides.

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