Abstracts

Application of the Arnoldi method in FEM analysis of waveguides

J. Mielewski and M. Mrozowski. "Application of the Arnoldi method in FEM analysis of waveguides." 1998 Microwave and Guided Wave Letters 8.1 (Jan. 1998 [MGWL]): 7-9.

The authors present the application of the Arnoldi method to the solution of generalized nonsymmetric sparse eigen-problems which arise in the waveguide analysis involving the finite element method. To assess the efficiency of the Arnoldi method, the solution time is compared against the time required by the subspace iteration algorithm. It is found that the Arnoldi method converges much faster and gives significant CPU time savings.

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