Abstracts

Biharmonic Operators for the Waveguide Problem (Correspondence)

The inverse iteration method of analyzing an isotropic waveguide is reexamined with a view to finding the higher order modes. It is shown that the problem may be formulated in terms of a generalized biharmonic operator, which is always at least semidefinite. Several finite-difference representations are given for this operator. Of these, two possess property A, a point of fundamental importance for iterative solution by successive overrelaxation.

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