Abstracts

A New FEM Approach for Open Boundary Laplace's Problem (Short Papers)

D. Xingqi and A. Tongyi. "A New FEM Approach for Open Boundary Laplace's Problem (Short Papers)." 1996 Transactions on Microwave Theory and Techniques 44.1 (Jan. 1996 [T-MTT]): 157-160.

An efficient improved finite element method (FEM) is presented for electromagnetic Laplace's problems with open boundary. The whole infinite domain is divided into a set of infinite elements instead of ordinary finite elements. Since a special FEM discretization and FEM solving procedure are used, it can not only take much less computer memory than that the conventional FEM needs, but also avoid the calculation error introduced by the truncated boundary or absorbing boundary condition used in conventional FEM.

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