Abstracts

Iterative Solutions of the Scalar Helmholtz Equation in Lossy Regions

J.R. Molberg and D.K. Reynolds. "Iterative Solutions of the Scalar Helmholtz Equation in Lossy Regions." 1969 Transactions on Microwave Theory and Techniques 17.8 (Aug. 1969 [T-MTT] (Special Issue on Computer-Oriented Microwave Practices)): 460-464.

Iterative solutions to the finite difference equations derived from the scalar Helmholtz equation are found to diverge for domains greater than a certain size. A transform method is presented which produces convergence in larger domains. The method is illustrated by solutions for one- and two-dimensional cases involving lossy dielectric media.

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