Abstracts

Moment-Method Solutions and SAR Calculations for Inhomogeneous Models of Man with Large Number of Cells (Short Papers)

This paper describes an iterative band approximation method (BAM) that is useful for solution of large matrix eqnations where the elements of the matrix decrease in magnitude with increasing distance from the diagonal. The method involves the inversion of a band about the diagonal which is nsed to obtain a first estimate of the solution. This estimate, along with the remaining elements in the matrix above and below the band, is used to iterate to the final solution. Due to the substantial reduction in the size of the matrix which is actually inverted, the method has been applied to the solution of full complex matrix equations involving up to 1698 unknowns. BAM is used to obtain distributions of EM energy absorption for man models with 180-1132 cells.

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