

Abstracts

Formulation of a Haar-wavelet-based multi-resolution analysis similar to the 3-D FDTD method

M. Fujii and W.J.R. Hoefer. "Formulation of a Haar-wavelet-based multi-resolution analysis similar to the 3-D FDTD method." 1998 MTT-S International Microwave Symposium Digest 98.3 (1998 Vol. III [MWSYM]): 1393-1396.

A 3-D multi-resolution analysis procedure similar to the FDTD method is derived using Haar-wavelets. The method is validated by analyzing several 3-D rectangular resonators with inhomogeneous dielectric loading. It is also applied to the analyses of microstrip low pass filters with open boundaries, and their S-parameters are extracted. The results are compared with those of the traditional FDTD method.

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