Abstracts

Application of the FDTD Technique to Periodic Problems in Scattering and Radiation

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The finite-difference time-domain (FDTD) technique is applied to two-dimensional periodic problems in scattering and radiation. This method allows the direct and complete treatment of periodic scatterers and array having transverse or longitudinal inhomogeneities, and several examples are presented to illustrate the versatility of the technique. The FDTD grid needs only to be applied to a unit cell of the periodic structure, making the analysis very efficient from a computational point of view. The method is presently limited to broadside incidence, however.

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