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of

Use of Characteristic Basis Function Method for Scattering from Terrain Profiles

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Abstract: An integral equation (IE) based solution procedure is presented for the rigorous analysis of scattering from terrain profiles. The procedure uses characteristic basis function method (CBFM), which is hybridized with the forward-backward method (FBM), to reduce the storage requirements of the resultant Method of Moments (MoM) impedance matrix, as well as to accelerate the solution procedure. Numerical results in the form of induced current and scattered field are presented to assess the accuracy and efficiency of the solution procedure.

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