Abstracts

An Approach to Microwave Imaging Using a Multiview Moment Method Solution for a Two-Dimensional Infinite Cylinder (Short Papers)

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An approach based on a multiview solution to the inverse-scattering problem of a two-dimensional infinite cylinder is developed in a space-frequency domain. Microwave imaging is simulated by a computer algorithm using the moment method. To overcome ill-conditioning and solve nonsquare systems, a pseudoinverse transformation is employed. The equivalent current density and the complex conductivity are considered as object functions for image formation. The results of some numerical simulations in a noisy environment are reported, and a discussion of monoview and multiview imaging techniques for a space-frequency domain is presented.

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