Abstracts

FDTD Signal Extrapolation Using the Forward-Backward Autoregressive (AR) Model

In this paper, the forward-backward autoregressive model is employed to extrapolate time domain signatures generated by the Finite Difference Time Domain algorithm with a view to speeding up the process of obtaining the frequency responses of EM systems. It is shown that the present method requires considerably lower-order predictors than those needed in other AR models, e.g., those based on Yule-Walker equations, and is therefore computationally efficient.

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