

INTERFERENCE CONTROL BY COMPLEX WEIGHT METHOD IN ADAPTIVE ANTENNA SYSTEMS

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ABSTRACT

Proper weighting of array elements of an adaptive antenna system enables us to determine the desired beam pattern and place nulls in the direction of the interfering signal. Therefore array pattern synthesis is a very important aspect of the smart antenna system which makes it possible to maximize the signal-to-interference ratio. In this paper, an efficient method for array pattern synthesis in uniform linear arrays with the prescribed null and beamforming is presented. Analysis of interference control by both fixed weight and adaptive patterns synthesis are considered in this presentation

KEYWORDS: Adaptive antenna, Array pattern synthesis, Uniform linear arrays, Null and beamforming