Guidelines for Student Reports

LINEAR THINNED INTERLEAVED ARRAYS FOR THE OPTIMAL COMPROMISE AMONG SUM AND DIFFERENCE

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Abstract

Negli array lineari di grandi dimensioni utilizzati nel radar tracking le eccitazioni necessarie alla costruzione di patterns di tipo somma e differenza sono tipicamente di tipo ON/OFF (acceso/spento). Arrays di questo tipo sono detti "thinned". La necessità di ridurre la complessità hw del sistema di alimentazione dell'antenna e di aumentare l'efficienza della stessa ha portato all'introduzione di una nuova tecnica detta "interleaved" in cui i patterns somma e differenza sono generati da elementi che si trovano sullo stesso array lineare.

La ricerca in questione si pone l'obiettivo di costruire un pattern somma e differenza utilizzando un interleaved thinned array di modo che i due pattern soddisfino i vincoli desiderati, in particolare basso SLL (Sidelobe Level) e alta direttività.

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This report is submitted in partial fulfillment of the degree of the course "ACM".
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