Analog angular narrow and wideband null synthesis for concentric ring antenna arrays.



The research significance is that of obtaining a smart and flexible receiving antenna system capable of rejecting interferences in real-time with acceptable computational costs.

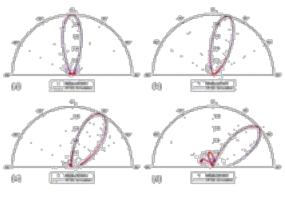
The problem is essentially that of developing a synthesis algorithm that enables the update of the element excitations to form nulls in proper angular directions, with the aim of strongly reducing the array gain towards multiple interferers. The algorithm should be sufficiently versatile to enable the generation also of broad null regions in order to manage situations in which many interferers act along directions close to each other, and scenarios where the channel angular spectrum has spread a single interferer on a wide angular region.

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