

Null Steering In Phased Arrays By Controlling The Element Positions

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Summary

Null steering methods usually involve costly and complicated amplitude and/or phase control systems. A technique is presented for null steering based on the element position perturbations. The technique frees the phase shifters to be used solely for steering the main beam toward the direction of the desired signal. It also removes the limitations of the other techniques by independently steering the main beam and the nulls to arbitrary independent directions. This technique is also capable of obtaining sidelobe cancellation and wideband signal rejection

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