Abstract

The smart antenna adaptive algorithms achieve the best weight vector for beam forming by iterative means. Whether the algorithm is good depends on the convergence rate and steady state error. Beam forming is directly determined by the two factors. The performance of the traditional LMS algorithm is analyzed in this paper. Then a new variable step size algorithm is proposed and is applied to beam forming with the software Matlab. The simulation result
indicates that the algorithm improved could achieve faster convergence and lower steady state error.

References

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Index Terms

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Smart antenna  adaptive algorithm  LMS  beamforming  antenna arrays