In this paper sample matrix inversion (SMI) algorithm is used to generate beam for a smart antenna. The capability of adaptive beam generation by SMI algorithm is investigated for linear and planar arrays. The accuracies of main beam toward user and null toward interferer, beam width and side lobe level with respect to the variation of block length are reported.
Investigations on Adaptive Beamforming for Linear and Planar Smart Antenna Arrays using Sample Matrix Inversion Algorithm


Index Terms

Computer Science

Communication

Keywords

Smart antenna; side lobe level; SMI algorithm; linear antenna array; planar antenna array