Abstract

This paper investigates the possibility estimating the direction of arrival (DOA) in a system identification perspective. The system is modeled as an autoregressive (AR) process and extended Kalman filter (EKF) is used to estimate the DOA, which forms a state of the augmented state vector of the EKF. The states generate the signals at a linearly phased array. Simulation results demonstrate the feasibility of the approach to estimate DOA to a reasonable degree of convergence especially at high SNRs.

Reference


**Index Terms**

Computer Science  
Signal Processing

**Key words**

Modeling  
Direction of arrival  
Estimation