Massachusetts Institute of Technology
Department of Electrical Engineering and Computer Science

6.432 Stochastic Processes, Detection and Estimation

Recitation 13 Outline

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State Space Models and Kalman Filtering

1. Linear least squares estimation facts
   - Estimates of linear combinations of random variables
   - Error variances for linear combinations
2. State space models
   - Definition and properties
   - State space representations of FIR filters
   - Constructing state space models from block diagrams
   - Propagation of uncertainty
3. Kalman filtering examples