



Fisher's Discriminant

Lecture 21

EE 640
Stochastic Systems



Outline

- Multi-Dimensional Detection
 - Identical covariance: Bayes classifier
 - Different covariance: Fisher's discriminant
- Fisher's Discriminant
 - Criterion function: signal-to-noise ratio
 - Maximum signal-to-noise ratio
 - Optimal decision boundary
- Hidden Markov Model
 - Testing: Bayesian rules
 - Learning: expectation and maximization