



# Signal Detection & Discrimination

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Lecture 20

EE 640  
Stochastic Systems



## Outline

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- Hypothesis Testing
  - Verification, Identification, Recognition
- Bayes Classifier
  - Linear classifier, decision boundary
  - Maximum Likelihood Ratio
  - Maximum A Posteriori Ratio
- Detection Errors
  - False alarms: when a clutter is present, we decide that a target is present
  - Miss: when a target is present but we decide that a clutter is present