Massachusetts Institute of Technology
Department of Electrical Engineering and Computer Science

6.432 Stochastic Processes, Detection and Estimation

Recitation 8 Outline

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Examples of Stochastic Processes

1. Review of homogeneous Poisson counting process
   - Definition and sample paths
   - Properties: Gaussianity, Markovianity, stationarity, increments
2. Random telegraph waves
   - Definition and sample paths
   - Properties: Gaussianity, Markovianity, stationarity, increments

Second Order Statistics and Stochastic Processes

1. Differentiation of continuous time processes
   - Mean function
   - Covariance function
2. Determing process variance from power spectral densities
   - Discrete time
   - Continuous time