

STAT 547C Topics in Probability

M/W 3:00-4:30 pm, ESB 4192

Instructor: TBD

Outline of topics

- Probability space
- Random variable and random vector
- Expected value
- Multivariate normal distribution
- Sequence of events
- Limiting behavior of random variables and vectors
- LLN and CLT
- Distribution of sums, max and min of independent variables
- Markov Chain
- Poisson Process

Some References

- C.R. Crummett and D.R. Stirzaker, Probability and Random Processes (2001)
- S.M. Ross, Probability Models, Sixth Edition, Academic Press, New York (1997)
- P. Billingsley, Probability and Measure, 3rd edition, John Wiley & Sons, New York (1995).
- R.J. Serfling, Approximation Theorems of Mathematical Statistics, John Wiley & Sons, New York (1980).

Evaluation

Homework 40% (4-5 assignments)

Midterm 30% (90 minute test)

Final Exam 30% (120 minute test)