

STAT 547C - Topics in Probability

Instructor

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Office Hours: Friday, 3-4

Course Outline

- Probability space
- Sequence of events
- Random variable and random vector
- Expected value
- Multivariate normal distribution
- 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

- G.R. Grimmett 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)