Topics in Probability and Stochastic Processes

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This module aims to present some advanced probabilistic concepts and demonstrate their application to stochastic modelling of real-world situations. The topics covered include renewal theory, continuous-time Markov processes and Brownian motion. In addition to exposure to proofs and theoretical material, students develop practical skills through a large number of problems and worked examples.

1.

Pinsky, M. A. & Karlin, S. An introduction to stochastic modeling. (Academic Press, 2011).

2.

Ross, S. M. & MyiLibrary. Introduction to probability models. (Academic Press, 2007).