Topics in Probability and Stochastic Processes

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, Amsterdam (2011).

2.

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