



Markov Processes and Applications: Algorithms, Networks, Genome and Finance

By Pardoux, Etienne

Wiley, 2009. Book Condition: New. Brand New, Unread Copy in Perfect Condition. A+ Customer Service! Summary: 1. Simulations and the Monte Carlo method.1.1 Description of the method.1.2 Convergence theorems.1.3 Simulation of random variables.1.4 Variance reduction techniques.1.5 Exercises.2. Markov chains.2.1 Definitions and elementary properties.2.2 Examples.2.3 Strong Markov property.2.4 Recurrent and transient states.2.5 The irreducible and recurrent case.2.6 The aperiodic case.2.7 Reversible Markov chain.2.8 Rate of convergence to equilibrium.2.9 Statistics of Markov chains.2.10 Exercises.3. Stochastic algorithms.3.1 Markov chain Monte Carlo.3.2 Simulation of the invariant probability.3.3 Rate of convergence towards the invariant probability.3.4 Simulated annealing.3.5 Exercises.4. Markov chains and the genome.4.1 Reading DNA.4.2 The i.i.d. model.4.3 The Markov model.4.4 Hidden Markov models.4.5 Hidden semi-Markov model.4.6 Alignment of two sequences.4.7 A multiple alignment algorithm.4.8 Exercises.5. Control and filtering of Markov chains.5.1 Deterministic optimal control.5.2 Control of Markov chains.5.3 Linear quadratic optimal control.5.4 Filtering of Markov chains.5.5 The Kalman-Bucy filter.5.6 Linear-quadratic control with partial observation.5.7 Exercises.6. The Poisson process.6.1 Point processes and counting processes.6.2 The Poisson process.6.3 The Markov property.6.4 Large time behaviour.6.5 Exercises.7. Jump Markov processes.7.1 General facts.7.2 Infinitesimal generator.7.3 The strong Markov property.7.4 Embedded Markov chain.7.5 Recurrent and

Reviews

Absolutely among the finest book We have at any time read through. We have read through and that i am sure that i will going to read once more again later on. I found out this book from my i and dad suggested this book to find out.

-- **Alford McClure**

I actually started reading this article ebook. It is actually packed with knowledge and wisdom Its been printed in an remarkably simple way and it is only after i finished reading this pdf where in fact modified me, alter the way i believe.

-- **Prof. Uriel Witting**