Essentials of stochastic processes

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Abstrak

This book is covers Markov chains in discrete and continuous time, poisson processes, renewal processes, martingales, and mathematical finance. One can only learn a subject by seeing it in action, so there are a large number of examples and more than 300 carefully chosen exercises to deepen the reader's understanding. There are many new examples and problems with solutions that use the TI-83. Some material that was too advanced for the level has been eliminated while the treatment of other topics useful for applications has been expanded. In addition, the ordering of topics has been improved. For example, the difficult subject of martingales is delayed until its usefulness can be seen in the treatment of mathematical finance.