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	Sommario/riassunto	Building upon the previous editions, this textbook is a first course in stochastic processes taken by undergraduate and graduate students (MS and PhD students from math, statistics, economics, computer science, engineering, and finance departments) who have had a course in probability theory. It covers Markov chains in discrete and continuous time, Poisson processes, renewal processes, martingales, and option pricing. 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. Drawing from teaching experience and student feedback, there are many new examples and problems with solutions that use TI-83 to eliminate the tedious details of solving linear equations by hand, and the collection of exercises is much improved, with many more biological examples. Originally included in previous editions, material too advanced for this first course in stochastic processes has been eliminated while 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 applied in the treatment of mathematical finance. • A concise treatment and textbook on the most important topics in Stochastic Processes • Illustrates all concepts with examples and presents more than 300 carefully chosen exercises for effective learning • New edition includes added and revised exercises, including many biological exercises, in addition to restructured and rewritten sections with a goal toward clarity and simplicity • Solutions Manual available for instructors Richard Durrett received his Ph.D. in Operations Research from Stanford in 1976. He taught at the UCLA mathematics department for 9 years and at Cornell for 25 years before moving to Duke in 2010. He is author of 8 books and more than 200 journal articles and has supervised more that 45 Ph.D. students. He is a member of the National Academy of Science. Most of his current research concerns the applications of probability to biology: ecology, genetics, and cancer modeling.