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Autore	Kulkarni Vidyadhar G.
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Nota di contenuto	1. Introduction -- 2. Discrete-time Markov chains : transient behavior -- 3. Discrete-time Markov chains : first passage times -- 4. Discrete-time Markov chains : limiting behavior -- 5. Poisson processes -- 6. Continous-time Markov chains -- 7. Queueing models -- 8. Renewal processes -- 9. Markov regenerative processes -- 10. Diffusion processes.
Sommario/riassunto	Building on the author's more than 35 years of teaching experience, Modeling and Analysis of Stochastic Systems, Third Edition, covers the most important classes of stochastic processes used in the modeling of diverse systems. For each class of stochastic process, the text includes its definition, characterization, applications, transient and limiting behavior, first passage times, and cost/reward models. The third edition has been updated with several new applications, including the Google search algorithm in discrete time Markov chains, several examples from health care and finance in continuous time Markov chains, and square root staffing rule in Queuing models. More than 50 new exercises have been added to enhance its use as a course text or for self-study. The sequence of chapters and exercises has been

maintained between editions, to enable those now teaching from the second edition to use the third edition.