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Livello bibliografico	Monografia
Nota di contenuto	Finite Markov Chains -- Random walks on finite graphs -- The first appearance of a pattern -- The ruin problem -- The Ehrenfest chain -- The simple symmetric random walk -- Asymmetric and higher dimension random walks -- Discrete time birth and death chains -- Discrete time branching process -- Recurrence on countable spaces -- Stationary distributions on countable spaces -- The Poisson process -- Continuous time birth and death chains -- Continuous time branching processes -- Percolation -- A cellular automaton -- A branching random walk -- The contact process on a homogeneous tree -- Appendix: A little more probability -- Bibliography -- Index.
Sommario/riassunto	This textbook provides an accessible approach to concepts and applications of stochastic processes ideal for a wide range of readers. This revised third edition features an intuitive reorganization with concrete topics introduced early on which are then used to demonstrate more abstract concepts in later chapters. The author has

kept chapters short and independent from each other, with several of the longer chapters from previous editions now divided into smaller, more manageable parts. These changes build upon previous editions to allow readers even greater flexibility. The applications that are covered feature active areas of research within biological modeling, such as cancerous mutations, influenza evolution, drug resistance, and immune response. Important problems in fields such as engineering and mathematical physics are presented as well. These topics elegantly apply various classical stochastic models and are motivated throughout with many worked out examples. This third edition of Classical and Spatial Stochastic Processes is suitable as a textbook for a first course in stochastic processes at the upper-undergraduate or graduate level. Because of its accessible approach, it may also be used as a self-study resource for researchers and practitioners in mathematics, engineering, physics, and mathematical biology.