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Titolo	Stochastic Linear-Quadratic Optimal Control Theory: Open-Loop and Closed-Loop Solutions // by Jingrui Sun, Jiongmin Yong
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Descrizione fisica	1 online resource (xii, 130 pages)
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Disciplina	519.3 515.64
Soggetti	Mathematical optimization Calculus of variations Probabilities System theory Control theory Game theory Calculus of Variations and Optimization Probability Theory Systems Theory, Control Game Theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	1 introduction -- 2 Linear-Quadratic Optimal Controls in Finite Horizons -- 3 Linear-Quadratic Optimal Controls in Infinite Horizons -- 4 Linear Algebra and BSDEs.
Sommario/riassunto	This book gathers the most essential results, including recent ones, on linear-quadratic optimal control problems, which represent an important aspect of stochastic control. It presents the results in the context of finite and infinite horizon problems, and discusses a number of new and interesting issues. Further, it precisely identifies, for the first time, the interconnections between three well-known, relevant issues – the existence of optimal controls, solvability of the optimality system, and solvability of the associated Riccati equation. Although the

content is largely self-contained, readers should have a basic grasp of linear algebra, functional analysis and stochastic ordinary differential equations. The book is mainly intended for senior undergraduate and graduate students majoring in applied mathematics who are interested in stochastic control theory. However, it will also appeal to researchers in other related areas, such as engineering, management, finance/economics and the social sciences.
