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Descrizione fisica	1 online resource (xii, 281 pages)
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Soggetti	Stochastic differential equations Probabilities Operator theory Measure theory Probability Theory and Stochastic Processes Operator Theory Measure and Integration
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Preface -- List of Symbols -- 1. Preliminaries -- 2. Multifunctions -- 3. Decomposable Subsets of the Space $L_p(T, F, \mu, X)$ -- 4. Aumann Stochastic Integrals -- 5. Set-Valued Ito Integrals -- 6. Stochastic Differential Inclusions -- 7. Set-Valued Stochastic Differential Equations and Inclusions -- 8. Stochastic Optimal Control Problems -- 9. Mathematical Finance Problems -- References -- Index.
Sommario/riassunto	This book is among the first concise presentations of the set-valued stochastic integration theory as well as its natural applications, as well as the first to contain complex approach theory of set-valued stochastic integrals. Taking particular consideration of set-valued Itô , set-valued stochastic Lebesgue, and stochastic Aumann integrals, the volume is divided into nine parts. It begins with preliminaries of

mathematical methods that are then applied in later chapters containing the main results and some of their applications, and contains many new problems. Methods applied in the book are mainly based on functional analysis, theory of probability processes, and theory of set-valued mappings. The volume will appeal to students of mathematics, economics, and engineering, as well as to mathematics professionals interested in applications of the theory of set-valued stochastic integrals.

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